



LCD TV
LE22S8

Contact SAMSUNG WORLDWIDE

If you have any questions or comments relating to Samsung products,
please contact the SAMSUNG customer care centre.

Country	Customer Care Centre ☎	Web Site
REPUBLIC OF IRELAND	0818 717 100	www.samsung.com/ie
U.K.	0870-SAMSUNG(726-7864)	www.samsung.com/uk

Owner's Instructions

Before operating the unit,
please read this manual thoroughly,
and retain it for future reference.

**ON-SCREEN MENUS
PC DISPLAY
PICTURE IN PICTURE (PIP)
TELETEXT**

Precautions When Displaying a Still Image

A still image may cause permanent damage to the TV screen.

WARNINGS:

Image retention, commonly known as screen burn-in, can occur on most types of television if the same image is displayed continuously. The most common causes of image retention are logos that remain stationary on the TV screen. These logos are common on many programmes received via a Setop Box. To reduce this risk, avoid displaying still images for long durations and lower the brightness or contrast settings to decrease the intensity of the picture. Extended viewing of movies and programs in aspect ratios that are different from the aspect ratio of the TV may cause image retention. Always endeavour to avoid black borders top or bottom by using the zoom function. This will help eliminate the black borders and fit the picture to the entire area of the screen. Using a video game console may cause image retention and is not recommended. When using a PC input, avoid displaying still images for long durations and reduce the brightness or contrast settings to decrease the intensity of the picture.

IMPORTANT:

Image retention issues are not covered by your Samsung® warranty.

- Do not display a still image on the LCD panel for more than 2 hours as it can cause screen image retention. This image retention is also known as "screen bum".
To avoid such image retention, reduce the degree of brightness and contrast of the screen when displaying a still image.
-  Watching the LCD TV in 4:3 format for a long period of time may leave traces of borders displayed on the left, right and center of the screen caused by the difference of light emission on the screen. Playing a DVD or a game console may cause a similar effect to the screen. Damages caused by the above effect are not covered by the Warranty.
- Displaying still images from Video games and PC for longer than a certain period of time may produce partial after-images. To prevent this effect, reduce the 'brightness' and 'contrast' when displaying still images.

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Symbol



Press



Important



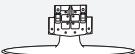
Note



One-Touch
Button

List of Parts

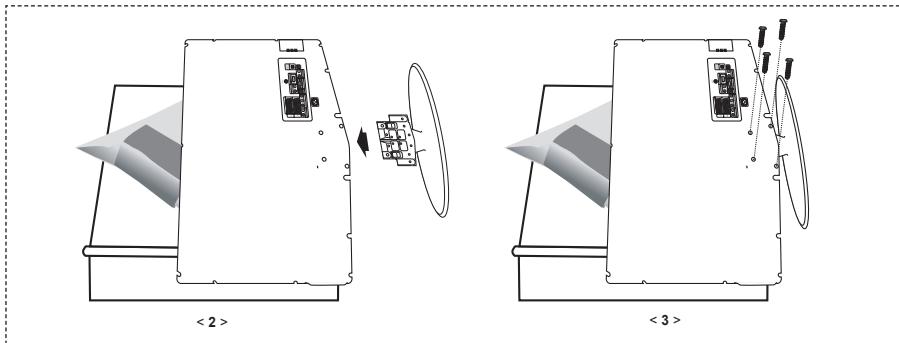
Please make sure the following items are included with your LCD TV.
If any items are missing, contact your dealer.

					
Remote Control & Batteries (AAA x 2)	Power Cord	Cover-Bottom	Stand Screw X 4	Stand	Cleaning Cloth
◆ Owner's Instructions			◆ Registration Cards		

> Registration Cards (Not available in all locations)

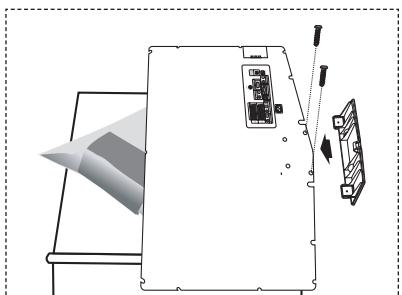
> The stand and stand screw may not be included depending on the model.

Installing the Stand



1. Place the TV faced down on a soft cloth or cushion on a table.
2. Put the stand into the hole at the bottom of the TV.
3. Insert screw into the hole indicated and tighten.

Installing the Wall Mount Kit



Wall mount items (sold separately) allow you to mount the TV on the wall.

For detailed information on installing the wall mount, see the instructions provided with the Wall Mount items. Contact a technician for assistance when installing the wall mounted bracket.

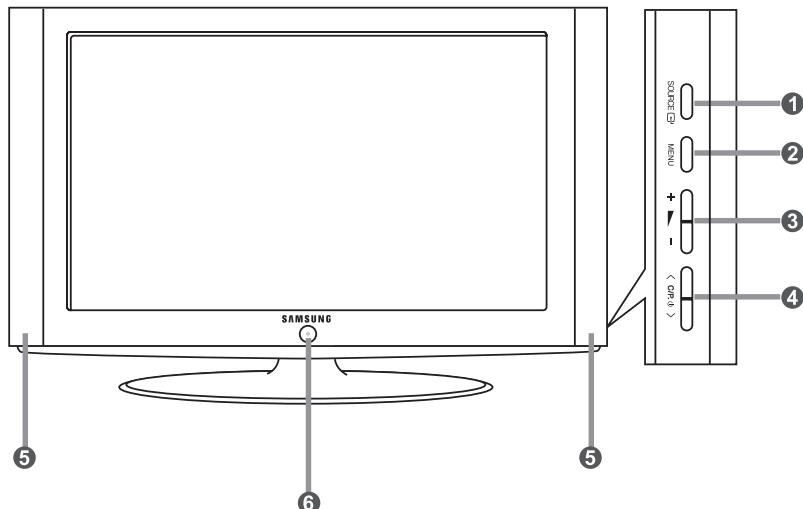
Samsung Electronics is not responsible for any damage to the product or injury to yourself or others if you elect to install the TV on your own.



Do not install your Wall Mount Kit while your TV is turned on. It may result in personal injury due to electric shock.

> Remove the stand and cover the bottom hole with a cap and fasten with two screws.

Viewing the Control Panel



➤ The product colour and shape may vary depending on the model.

① SOURCE

Toggles between all the available input sources (TV, Ext., AV, S-Video, Component, PC, HDMI, DTV). In the on-screen menu, use this button as you use the **ENTER/OK** button on the remote control.

② MENU

Press to see an on-screen menu of your TV's features.
In case of DTV mode, the DTV menu appears.

③ + -

Press to decrease or increase the volume.
In the on-screen menu, use the +  -  buttons as you use the **<** and **>** buttons on the remote control.

④ < C/P. >

Press to change channels.
In the on-screen menu, use the < C/P.  > buttons as you use the **▲** and **▼** buttons on the remote control.
(Without the Remote Control, you can turn on the TV by using the Channel buttons.)

⑤ Speakers

⑥ (Power)

Press to turn the TV on and off.

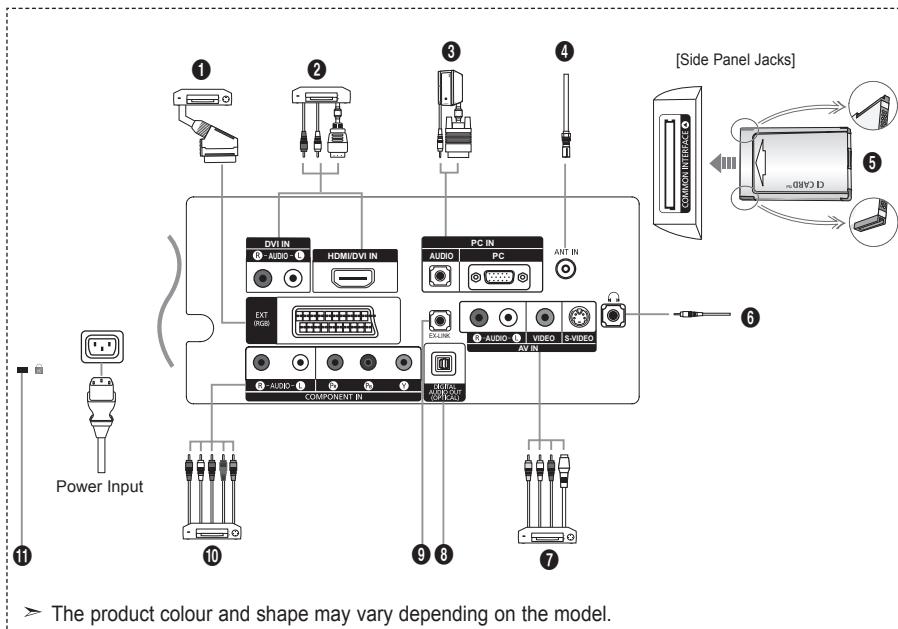
Power Indicator

Blinks and turns off when the power is on and lights up in stand-by mode.

Remote Control Sensor

Aim the remote control towards this spot on the TV.

Viewing the Connection Panel



➤ The product colour and shape may vary depending on the model.

- Whenever you connect an external device to your TV, make sure that power on the unit is turned off.
- When connecting an external device, match the colour of the connection terminal to the cable.

① Connecting Set-Top Box, VCR or DVD

Connector	Input			Output
	Video	Audio (L/R)	RGB	
EXT	o	o	o	Video + Audio (L/R) Only TV or DTV output is available.

-Inputs or outputs for external devices, such as VCR, DVD, video game device or video disc players.

② Connecting HDMI

- Supports connections between HDMI-connection-enabled AV devices (Set-Top Boxes, DVD players).
- No additional Audio connection is needed for an HDMI to HDMI connection.
- What is HDMI?
 - "High Definition Multimedia interface" allows the transmission of high definition digital video data and multiple channels of digital audio (5. 1 channels).
 - The HDMI/DVI IN terminal supports DVI connection to an extended device with the appropriate cable (not supplied). The difference between HDMI and DVI is that the HDMI device is smaller in size, has the HDCP(High Bandwidth Digital Copy Protection) coding feature installed, and supports multi - channel digital audio.
- You should use the DVI-to-HDMI cable or DVI-HDMI Adapter for the connection, and the "R - AUDIO - L" terminal on DVI for sound output.
- When connecting this product via HDMI or DVI to a Set Top Box, DVD Player or Games Console etc, make sure that it has been set to a compatible video output mode as shown in the table below. Failure to observe this may result in picture distortion, image breakup or no picture.

➢ Supported modes for HDMI/DVI and Component

	480i	480p	576i	576p	720p	1080i
HDMI/DVI 50Hz	X	X	X	O	O	O
HDMI/DVI 60Hz	X	O	X	X	O	O
Component	O	O	O	O	O	O

- The HDMI/DVI IN jack support PC connection.

③ Connecting Computer

- Connect the D-Sub cable (optional) to "PC (PC IN)" on the rear of your set and the other end to the Video Card of your computer.
- Connect the stereo audio cable (optional) to "AUDIO (PC IN)" on the rear of your set and the other end to "Audio Out" of the sound card on your computer.

④ Connecting an Aerial or Cable Television Network

To view television channels correctly, a signal must be received by the set from one of the following sources:

- An outdoor aerial / A cable television network / A satellite network

⑤ Connecting CI (Common Interface) CARD

- When not inserting "CI CARD" in some channels, "Scrambled Signal" is displayed on the screen.
- The pairing information containing a telephone number, CI CARD ID, Host ID and other information will be displayed in about 2~3 minutes. If an error message is displayed, please contact your service provider.
- When the channel information configuration has finished, the message "Updating Completed" is displayed, indicating that the channel list is now updated.

➢ You must obtain a CI CARD from a local cable service provider.
Remove the CI CARD by carefully pulling it out with your hands since dropping the CI CARD may cause damage to it.

➢ Insert the CI-Card in the direction marked on it.

⑦ Connecting External A/V Devices

- Connect RCA or S-VIDEO cable to an appropriate external A/V device such as VCR, DVD or Camcorder.
- Connect RCA audio cables to "R - AUDIO - L" on the rear of your set and the other ends to corresponding audio out connectors on the A/V device.
- Headphone may be connected to the headphone output (⑥) on the rear of your set. While the head phone is connected, the sound from the built-in speakers will be disabled.

⑧ DIGITAL AUDIO OUT (OPTICAL)

- Connect to a Digital Audio Component.

⑨ EX-LINK

- Service connection for qualified service engineer.

⑩ Connecting Component Devices (DTV/DVD)

- Connect component video cables (optional) to component connector ("P_R", "P_B", "Y") on the rear of your set and the other ends to corresponding component video out connectors on the DTV or DVD.
- If you wish to connect both the Set-Top Box and DTV (or DVD), you should connect the Set-Top Box to the DTV (or DVD) and connect the DTV (or DVD) to component connector ("P_R", "P_B", "Y") on your set.
- The P_R, P_B and Y connectors on your component devices (DTV or DVD) are sometimes labeled Y, B-Y and R-Y or Y, Cb and Cr.
- Connect RCA audio cables (optional) to "R - AUDIO - L" on the rear of your set and the other ends to corresponding audio out connectors on the DTV or DVD.
- This LCD TV displays its optimum picture resolution in 720p mode.
- This LCD TV displays its maximum picture resolution in 1080i mode.

⑪ Kensington Lock

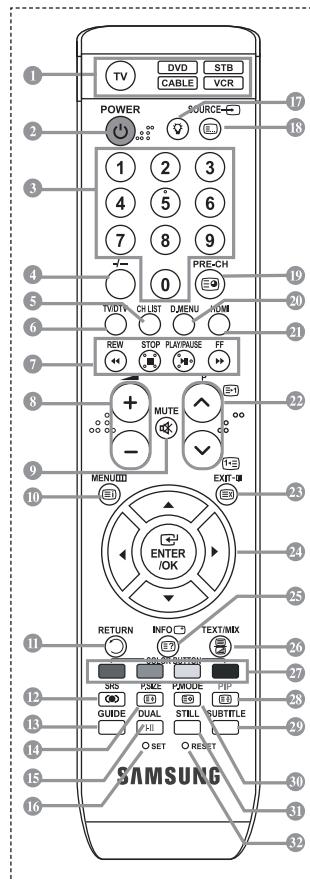
- The Kensington lock (optional) is a device used to physically fix the system when used in a public place.
- If you want to use a locking device, contact the dealer where you purchased the TV.
- The place of the Kensington Lock may be different depending on its model.

Viewing the Remote Control

- ① Selects a target device to be controlled by the Samsung remote control (TV, DVD, STB, CABLE, VCR)
(Refer to page 47~50)
- ② Television Standby button
- ③ Number buttons for direct channel access
- ④ One/Two-digit channel selection
- ⑤ It display "Channel List" on the screen.
- ⑥ Selects the TV and DTV mode directly
- ⑦ VCR/DVD Functions
Rewind, Stop, Play/Pause, Fast/Forward
- ⑧ ⓧ Volume increase
⠁ Volume decrease
- ⑨ Temporary sound switch-off
- ⑩ Menu display and change confirmation
- ⑪ Returns to the previous menu
- ⑫ SRS TS XT selection
- ⑬ Electronic Program Guide (EPG) display
- ⑭ Picture size selection
- ⑮ Sound effect selection
- ⑯ Adjusts 5 separate devices - TV, DVD, STB, CABLE or VCR.
- ⑰ When pressing this button, a number of buttons on the remote control (e.g. Selects a target device, volume, channel buttons) light up for a few seconds and then turn off to save power. This function is to conveniently use the remote control at night or when dark.
- ⑱ Available source selection
- ⑲ Previous channel
- ⑳ DTV menu display
- ㉑ Selects the HDMI mode directly.
- ㉒ ⓧ: Next channel
⠁: Previous channel
- ㉓ Exit the OSD
- ㉔ Control the cursor in the menu
- ㉕ Use to see information on the current broadcast
- ㉖ Colour buttons: Press to add or delete channels and to store channels to the favorite channel list in the "Channel List" menu.
- ㉗ Picture-In-Picture On / Off
- ㉘ Digital subtitle display
- ㉙ Picture effect selection
- ㉚ Picture freeze
- ㉛ When your remote does not work, change the batteries and press the "RESET" button for 2-3 seconds before use.

Teletext Functions

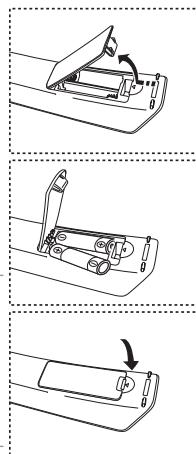
- ㉕ Exit from the teletext display
- ㉖ Teletext index
- ㉗ Teletext size selection
- ㉘ Teletext mode selection (LIST/FLOF)
- ㉙ Teletext sub page
- ㉚ ⓧ: Teletext next page
⠁: Teletext previous page
- ㉛ Teletext cancel
- ㉜ Teletext reveal
- ㉝ Alternately select Teletext, Double or Mix.
- ㉞ Fastext topic selection
- ㉟ Teletext hold
- ㉞ Teletext store



- The performance of the remote control may be affected by bright light.
- This is a special remote control for the visually impaired and has Braille points on the Power, Channel, STOP, PLAY/PAUSE and Volume buttons.

Installing Batteries in the Remote Control

1. Lift the cover at the back of the remote control upward as shown in the figure.
2. Install two AAA size batteries.
➤ Make sure to match the "+" and "-" ends of the batteries with the diagram inside the compartment.
3. Replace the cover.
➤ Remove the batteries and store them in a cool, dry place if you won't be using the remote control for a long time. The remote control can be used up to about 23 feet from the TV.
(Assuming typical TV usage, the batteries last for about one year.)
- If the remote control doesn't work, check the following:
 1. Is the TV power on?
 2. Are the plus and minus ends of the batteries reversed?
 3. Are the batteries drained?
 4. Is there a power outage or is the power cord unplugged?
 5. Is there a special fluorescent light or neon sign nearby?



Switching On and Off

The mains lead is attached to the rear of your set.

1. Plug the mains lead into an appropriate socket.
➤ The standby indicator lights up on the front of the set.
2. Press the \diamond button on the front of the set.
➤ You also can press the **POWER** \diamond button or the **TV/DTV** button on the remote control to turn the TV on.
➤ The programme that you were watching last is reselected automatically.
3. Press the numeric button (0~9) or channel up/down (\ominus/\oplus) button on the remote control or \langle C/P. \diamond \rangle button on the right side of the set.
➤ When you switch the set on for the very first time, you will be asked to choose language in which the menus are to be displayed.
4. To switch your set off, press the **POWER** \diamond button again.

Placing Your Television in Standby Mode

Your set can be placed in standby mode in order to reduce the power consumption. The standby mode can be useful when you wish to interrupt viewing temporarily (during a meal, for example).

1. Press the **POWER** \diamond button on the remote control.
➤ The screen is turned off and a red standby indicator appears on the front of your set.
2. To switch your set back on, simply press the **POWER** \diamond , numeric buttons (0~9), **TV/DTV** button or channel up/down (\ominus/\oplus) button again.
➤ Do not leave your set in standby mode for long periods of time (when you are away on holiday, for example).
It is best to unplug the set from the mains and aerial.

Plug & Play

When the TV is initially powered on, several basic settings proceed automatically and subsequently. The following settings are available.

- Any functions related to Digital TV (DVB) will only work in countries or areas where DVB-T (MPEG2) digital terrestrial signals are broadcasted. Please confirm with your local dealer if you can receive DVB-T signals. Although this TV set follows the DVB-T specification, maintaining compatibility with the future coming DVB-T digital terrestrial broadcasts is not guaranteed. Several functions may not be available in some countries.
- 1. Press the **POWER** button on the remote control.
The message "Start Plug & Play" is displayed with "OK" selected.
- 2. Select the appropriate language by pressing the **▲** or **▼** button.
Press the **ENTER/OK** button to confirm your choice.
- 3. Press the **◀** or **▶** button to select "Shop" or "Home", then the **ENTER/OK** button.
 - We recommend setting the TV to Home mode for the best picture in your home environment.
 - Shop mode is only intended for use in retail environments.
 - If the unit is accidentally set to Shop mode and you want to return to Dynamic (Home) mode, press the Volume button and then hold down the **MENU** button for five seconds on the side panel of the TV.
- 4. The message "Check antenna input." is displayed with "OK" selected. Press the **ENTER/OK** button.
 - Please check that the antenna cable is connected correctly.
- 5. Select the appropriate country by pressing the **▲** or **▼** button.
Press the **ENTER/OK** button to confirm your choice.
- 6. The message "Some DTV functions may not be available. Digital Scan?" is displayed.
Press the **◀** or **▶** button to select "Yes" or "No", then press the **ENTER/OK** button.
 - ◆ Yes: First an ATV search is performed and then a DTV ch. auto search is performed.
 - ◆ No: Only an ATV search is performed.

➢ This function is supported for all countries except for the following 6 countries: the United Kingdom, Austria, France, Germany, Italy and Spain.
- 7. The "Auto Store" menu is displayed with the "Start" selected. Press the **ENTER/OK** button.
 - The channel search will start and end automatically.
 - The DTV channel scan menu appears and the DTV channel is automatically updated.
 - If the DTV channel is updated, the Source in the source list of the Input menu is automatically changed to DTV. After all the available channels are stored, the "Clock Set" menu appears.
 - Press the **ENTER/OK** button at any time to interrupt the memorization process.
 - For detailed descriptions about DTV channel update, refer to page 32 of this manual.
After all the available digital channels are stored, the screen to select a time zone is displayed depending on the country.
- 8. Press the **ENTER/OK** button.
Select the "Month", "Day", "Year", "Hour" or "Minute" by pressing the **◀** or **▶** button.
Set the "Month", "Day", "Year", "Hour" or "Minute" by pressing the **▲** or **▼** button.
 - You can also set the "Month", "Day", "Year", "Hour" and "Minute" by pressing the number buttons on the remote control.
- 9. Press the **ENTER/OK** button to confirm your setting. The message "Enjoy your viewing" is displayed.
When you have finished, press the **ENTER/OK** button.
 - Even if the **ENTER/OK** button is not pressed, the message will automatically disappear after several seconds.

◆ **Language:** Select your language.
◆ **Country:** Select your country.
◆ **Auto Store:** Automatically scans for and stores channels available in the local area.
◆ **Clock Set:** Sets the current time for the TV clock.



If you want to reset this feature...

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
2. Press the **ENTER/OK** button again, to select "Plug & Play".
3. The message "Start Plug & Play" is displayed.
(Refer to page 9)



- Storing Channels Automatically
- Storing Channels Manually



Storing Channels Automatically

You can scan for the frequency ranges available to you (and availability depends on your country). Automatically allocated programme numbers may not correspond to actual or desired programme numbers. However, you can sort numbers manually and clear any channels you do not wish to watch.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Channel", then press the **ENTER/OK** button.
2. Press the **ENTER/OK** button to select "Country".
3. Select the appropriate country by pressing the **▲** or **▼** button.
Press the **ENTER/OK** button to confirm your choice.
➢ Even though you have changed the country setting in this menu, the country setting for DTV is not changed. (Refer to page 32)
4. Press the **▲** or **▼** button to select "Auto Store", then press the **ENTER/OK** button.
5. Press the **ENTER/OK** button.
➢ The TV will begin memorizing all of the available channels.
➢ Press the **ENTER/OK** button at any time to interrupt the memorization process and return to the "Channel" menu.
6. After all the available channels are stored, the "Sort" menu appears. (Refer to page 13)

Storing Channels Manually

You can store up to 100 channels, including those received via cable networks.

When storing channels manually, you can choose:

- ◆ Whether or not to store each of the channels found.
- ◆ The programme number of each stored channel which you wish to identify.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Channel", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Manual Store", then press the **ENTER/OK** button.
3. Press the **ENTER/OK** button to select "Programme".
4. To assign a programme number to a channel, find the correct number by pressing the **▲** or **▼** button and then press the **ENTER/OK** button.
➤ You can also set a programme number by pressing number buttons on the remote control.
5. Press the **▲** or **▼** button to select "Colour System", then press the **ENTER/OK** button.
6. Select the colour standard required by pressing the **▲** or **▼** button then, press the **ENTER/OK** button.
7. Press the **▲** or **▼** button to select "Sound System", then press the **ENTER/OK** button.
8. Select the sound standard required by pressing the **▲** or **▼** button, then press the **ENTER/OK** button.
➤ If there is an abnormal sound or no sound, re-select the sound system required.
9. If you know the number of the channel to be stored, press the **▲** or **▼** button to select "Channel".
Press the **ENTER/OK** button. Select **C** (Air channel) or **S** (Cable channel) by pressing the **▲** or **▼** button. Press the **▶** button to select channel.
Select the required number by pressing the **▲** or **▼** button and then press the **ENTER/OK** button.
➤ Channel mode: **P** (Programme mode), **C** (Air channel mode), **S** (Cable channel mode)
➤ You can also set a channel number by pressing number buttons on the remote control.
10. If you do not know the channel numbers, press the **▲** or **▼** button to select "Search".
Press the **ENTER/OK** button. Search by pressing the **▲** or **▼** button and then press the **ENTER/OK** button.
11. Press the **▲** or **▼** button to select "Store". Press the **ENTER/OK** button to select "OK".
12. Repeat steps **3** to **11** for each channel to be stored.

- ◆ **Programme:** Selects a program number for the channel.
- ◆ **Colour System:** Sets the colour supporting system.
- ◆ **Sound System:** Sets the sound supporting system.
- ◆ **Channel:** Selects a channel.
- ◆ **Search:** Scans for the frequency value for the channel.
- ◆ **Store:** Saves your settings.

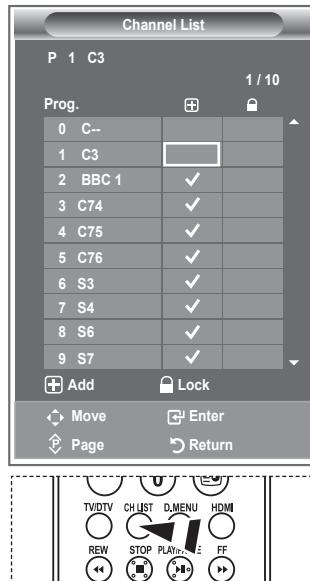
Setting the Channel Lists

Set the channels according to your preference.
You can easily delete, add or lock the channel you want.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Channel", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Channel Manager", then press the **ENTER/OK** button.
3. Press the **ENTER/OK** button again, to select "Channel List".
4. Press the **▶** button to select "**⊕**" line.
5. Press the **▲** or **▼** button to select the undesired channel, then press the **ENTER/OK** button to cancel.
6. Repeat steps 5 for each channel to be selected or canceled
7. Press the **EXIT** button to exit.

➤ "⊕" is active when "Child Lock" is selected to "On".

➤ You can select these options by simply pressing the **CH LIST** button on the remote control



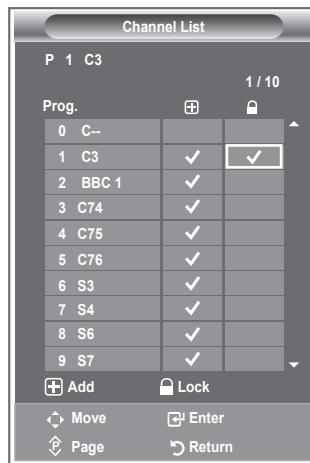
Activating the Child Lock

This feature allows you to prevent unauthorized users, such as children, from watching unsuitable programmes by muting out video and audio.

Child Lock cannot be released using the buttons on the side. Only the remote control can release the Child Lock setting, so keep the remote control away from children.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Channel", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Channel Manager", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Child Lock", then press the **ENTER/OK** button.
4. Press the **▲** or **▼** button to select "On". Press the **ENTER/OK** button.
5. Press the **▲** or **▼** button to select "Channel List", then press the **ENTER/OK** button.
6. Press the **▶** button to select "**⊕**" line.
7. Press the **▲** or **▼** button to select the channels you want to lock, then press the **ENTER/OK** button.
8. Repeat steps 7 for each channel to be locked or unlocked.
9. Press the **EXIT** button to exit.

➤ Select "On" or "Off" in "Child Lock" to easily turn the channels which selected on "⊕" to be active or inactive.

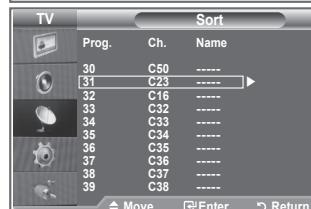


Sorting the Stored Channels

You can exchange the numbers of two channels, in order to:

- ◆ Modify the numeric order in which the channels have been automatically stored.
- ◆ Give easily remembered numbers to the channels that you watch most often.

1. Press the **MENU** button to display the menu. Press the **▲** or **▼** button to select "Channel", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Sort", then press the **ENTER/OK** button.
3. Select the channel number that you wish to change by pressing the **▲** or **▼** button repeatedly. Press the **ENTER/OK** button.
 - The selected channel number and name are moved to right side.
4. Press the **▲** or **▼** button to move to the position in which you would like to change and then press the **ENTER/OK** button.
 - The selected channel is exchanged with the one previously stored to the chosen number.
5. Repeat steps 3 to 4 for another channel to be sorted.
6. Press the **EXIT** button to exit.



Assigning Channels Names

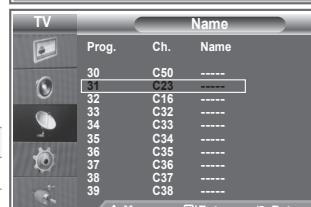
Channel names will be assigned automatically when channel information is broadcast. These names can be changed, allowing you to assign new names.

1. Press the **MENU** button to display the menu. Press the **▲** or **▼** button to select "Channel", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Name", then press the **ENTER/OK** button.
3. If necessary, select the channel to be assigned to a new name by pressing the **▲** or **▼** button. Press the **ENTER/OK** button.
 - The selection bar is displayed around the name box.

4. To...	Press the...
Select a letter, number or symbol	▲ or ▼ button
Move on the next letter	▶ button
Move back the previous letter	◀ button
Confirm the name	ENTER/OK button

- The characters available are : Letters of the alphabet (A~Z) / Numbers (0~9) / Special characters (space, /, *, -, +)

5. Repeat steps 3 to 4 for each channel to be assigned to a new name.
6. Press the **EXIT** button to exit.



Fine Tuning Channel Reception

Use fine tuning to manually adjust a particular channel for optimal reception.

1. Use the number buttons to directly select the channel that you want to fine tune.
2. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Channel", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Fine Tune", then press the **ENTER/OK** button.
4. Press the **◀** or **▶** button to adjust the fine tuning.
Press the **ENTER/OK** button.
5. Press the **EXIT** button to exit.
 - Fine tuned channels that have been saved are marked with an asterisk "*" on the right-hand side of the channel number in the channel banner. And the channel number turns red.
 - To reset the fine-tuning, select "Reset" by pressing the **▲** or **▼** button and then press the **ENTER/OK** button.



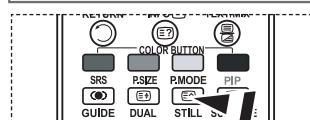
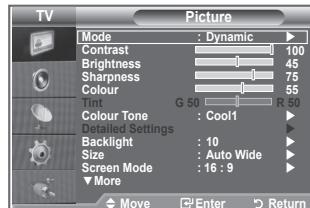
Changing the Picture Standard

You can select the type of picture which best corresponds to your viewing requirements.

1. Press the **MENU** button to display the menu.
Press the **ENTER/OK** button, to select "Picture".
2. Press the **ENTER/OK** button again to select "Mode".
3. Press the **▲** or **▼** button to select the desired picture effect.
Press the **ENTER/OK** button.
4. Press the **EXIT** button to exit.

- ◆ **Dynamic:** Selects the picture for high-definition in a bright room.
- ◆ **Standard:** Selects the picture for optimum display in a normal environment.
- ◆ **Movie:** Selects the picture for comfortable display in a dark room.

- The "Picture" mode must be adjusted separately for each input source.
- You can return to the factory defaults picture settings by selecting the "Reset".
(Refer to "Resetting the Picture Settings to the Factory Defaults" on page 19)

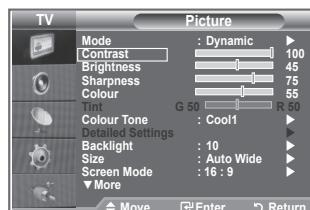


➤ You can also press the **P.MODE** button on the remote control to select one of the picture settings.

Adjusting the Custom Picture

Your set has several settings which allow you to control picture quality.

1. To select the desired picture effect, follow the "Changing the Picture Standard" instructions number 1 to 3.
2. Press the **▲** or **▼** button to select a particular item. Press the **ENTER/OK** button.
3. Press the **◀** or **▶** button to decrease or increase the value of a particular item. Press the **ENTER/OK** button.
4. Press the **EXIT** button to exit.



- ◆ **Contrast:** Adjusts the lightness and darkness between objects and the background.
- ◆ **Brightness:** Adjusts the brightness of the whole screen.
- ◆ **Sharpness:** Adjusts the outline of objects to either sharpen them or make them more dull.
- ◆ **Colour:** Adjusts the colours, making them lighter or darker.
- ◆ **Tint:** Adjusts the colour of objects, making them more red or green for a more natural look.

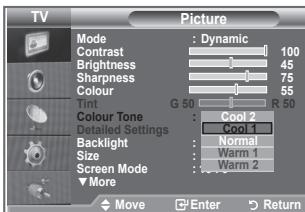
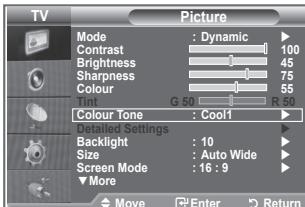
- The adjusted values are stored according to the selected Picture mode.
- In PC Mode, Only "Contrast" and "Brightness" can be adjusted.
- "Tint" is only activated for NTSC broadcasting, DTV broadcasting, and Component modes.

Changing the Colour Tone

You can select the most comfortable colour tone to your eyes.

1. To select the desired picture effect, follow the "Changing the Picture Standard" instructions number 1 to 3. (On page 15)
2. Press the **▲** or **▼** button to select "Colour Tone", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select the desired colour tone setting. Press the **ENTER/OK** button.
4. Press the **EXIT** button to exit

◆ **Cool2:** Makes the colour temperature bluer than "Cool1" menu.
◆ **Cool1:** Makes whites bluish.
◆ **Normal:** Keeps whites white.
◆ **Warm1:** Makes whites reddish.
◆ **Warm2:** Makes the colour temperature redder than "Warm1" menu.



➢ The adjusted values are stored according to the selected "Picture" mode.
➢ When the picture mode is set to "Dynamic" or "Standard", "Warm1" and "Warm2" cannot be selected.

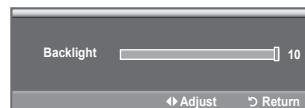
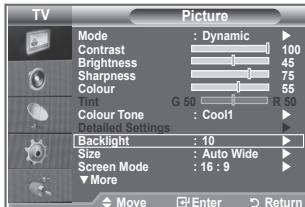
Activating Backlight

You can adjust the screen brightness by adjusting the LCD backlight brightness. (0~10)

1. To select the desired picture effect, follow the "Changing the Picture Standard" instructions number 1 to 3. (On page 15)
2. Press the **▲** or **▼** button to select "Backlight", then press the **ENTER/OK** button.
3. Press the **◀** or **▶** button to decrease or increase the value of a particular item.
4. Press the **ENTER/OK** button.

Press the **EXIT** button to exit.

➢ The adjusted values are stored according to the selected "Picture" mode.



Configuring Detailed Settings on the Picture

You can set detailed picture settings.

1. Press the **MENU** button to display the menu.
2. Press the **ENTER/OK** button, to select "Picture".
3. Press the **▲** or **▼** button to select "Detailed Settings", then press the **ENTER/OK** button.
4. Select the required option by pressing the **▲** or **▼** button, then press the **ENTER/OK** button.

Available options: Black Adjust, Dynamic Contrast, Gamma, White Balance, My Colour Control, Edge Enhancement, Colour Space.

5. When you are satisfied with your setting, press the **ENTER/OK** button.

6. Press the **EXIT** button to exit.
 - When the picture mode is set to "Movie" or "Standard", "Detailed Settings" can be selected.
 - If "DNIe" is Off, the "Detailed Settings" cannot be selected when the "Picture" mode is in "Standard" mode.

◆ **Black Adjust: Off/Low/Medium/High**

You can directly select the black level on the screen to adjust the screen depth.

◆ **Dynamic Contrast: Off/Low/Medium/High**

You can adjust the screen contrast so that the optimal contrast is provided.

◆ **Gamma: -3 ~ +3**

You can adjust the middle brightness of pictures.

Press the **◀** or **▶** button until you reach the optimal setting.

◆ **White Balance: R-Offset/G-Offset/B-Offset/R-Gain/G-Gain/B-Gain/Reset**

You can adjust the colour temperature for more natural picture colours.

R-Offset/G-Offset/B-Offset/R-Gain/G-Gain/B-Gain: Changing the adjustment value will refresh the adjusted screen.

Select the required option by pressing the **▲** or **▼** button, then press the **ENTER/OK** button.

Press the **◀** or **▶** button until you reach the optimal setting.

Reset: The previously adjusted white balance will be reset to the factory defaults.

◆ **My Colour Control: Pink/Green/Blue/White/Reset**

This setting can be adjusted to suit your personal preferences.

Pink/Green/Blue/White: Changing the adjustment value will refresh the adjusted screen.

Select the required option by pressing the **▲** or **▼** button, then press the **ENTER/OK** button.

Press the **◀** or **▶** button until you reach the optimal setting.

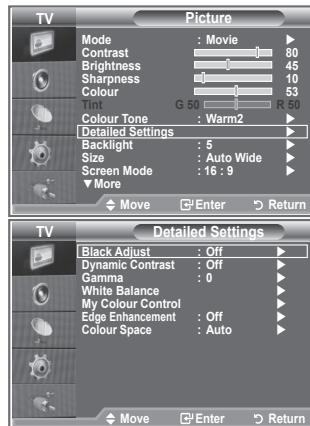
Reset: The previously adjusted colours will be reset to the factory defaults.

◆ **Edge Enhancement: Off/On**

You can emphasize object boundaries.

◆ **Colour Space: Auto/Wide**

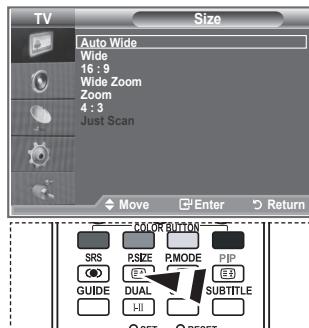
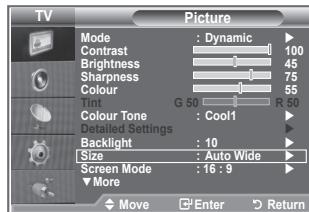
You can set the colour reproduction space for the input signal to Auto or Wide.



Changing the Picture Size

You can select the picture size which best corresponds to your viewing requirements.

1. Press the **MENU** button to display the menu.
Press the **ENTER/OK** button, to select "Picture".
2. Press the **▲** or **▼** button to select "Size", then press the **ENTER/OK** button.
3. Select the required option by pressing the **▲** or **▼** button.
Press the **ENTER/OK** button.
4. Press the **EXIT** button to exit.
 - ◆ **Auto Wide:** Automatically adjusts the picture size to the "16:9" aspect ratio.
 - ◆ **Wide:** Adjusts the picture size to 16:10 appropriate for DVDs or wide broadcasting.
 - ◆ **16:9:** Adjusts the picture size to 16:9 appropriate for DVDs or wide broadcasting.
 - ◆ **Wide Zoom:** Magnify the size of the picture more than 4:3.
 - ◆ **Zoom:** Magnifies the 16:9 wide picture (in the vertical direction) to fit the screen size.
 - ◆ **4:3:** This is the default setting for a video movie or normal broadcasting.
 - ◆ **Just Scan:** Displays the input scenes as they are without any cutoff when HDMI 720p,1080i signals are input.

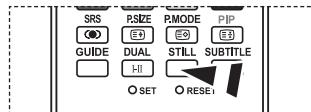


You can select these options by simply pressing the **PSIZE** button on the remote control.

- "Auto Wide" function is available only in "TV", "Ext.", "AV", "S-Video" and "DTV" mode.
- In PC Mode, only "Wide" and "4:3" mode can be adjusted.
- Zoom : Select by pressing the **◀** or **▶** button.
Use the **▲** or **▼** button to move the picture up and down. After selecting , use the **▲** or **▼** button to magnify or reduce the picture size in the vertical direction.
- Wide Zoom : Move the screen up/down using the **▲** or **▼** buttons after selecting the by pressing the **▶** or **ENTER/OK** button.

Freezing the Current Picture

Press the **STILL** button to freeze a moving picture into a still one. Press again to cancel.



Selecting the Screen Mode

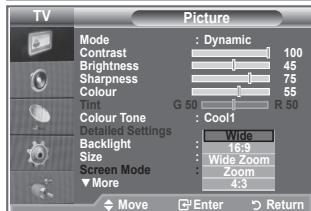
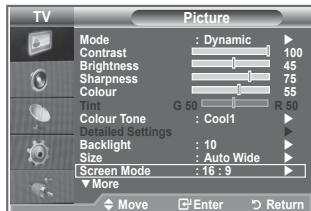
When setting the picture size to Auto Wide in a 16:9 wide TV, you can determine the picture size you want to see the 4:3 WSS (Wide Screen Service) image or nothing. Each individual European country requires different picture size so this function is intended for users to select it.

1. Press the **MENU** button to display the menu.
Press the **ENTER/OK** button, to select "Picture".
2. Press the **▲** or **▼** button to select "Screen Mode", then press the **ENTER/OK** button.
3. Select the required option by pressing the **▲** or **▼** button.
Press the **ENTER/OK** button.

Available options: Wide, 16:9, Wide Zoom, Zoom, 4:3

- ◆ **Wide**: Sets the picture to 16:10 wide mode.
- ◆ **16:9**: Sets the picture to 16:9 wide mode.
- ◆ **Wide Zoom**: Magnify the size of the picture more than 4:3.
- ◆ **Zoom**: Magnify the size of the picture vertically on screen.
- ◆ **4:3**: Sets the picture to 4:3 normal mode.

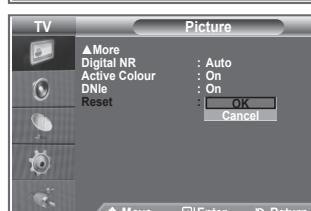
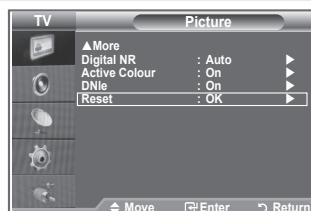
4. Press the **EXIT** button to exit.
➤ Screen Mode is available in Auto Wide mode.
➤ This function is not available in PC, Component or HDMI mode.



Resetting the Picture Settings to the Factory Defaults

You can return to the factory defaults picture settings.

1. To select the desired picture effect, follow the "Changing the Picture Standard" instructions number 1 to 3 on page 15.
2. Press the **▲** or **▼** button to select "Reset", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "OK" or "Cancel".
Press the **ENTER/OK** button.
4. Press the **EXIT** button to exit.
➤ The "Reset" will be set for each picture mode.



Digital NR / Active Colour / DNle

If the broadcast signal received by your TV is weak, you can activate the Digital Noise Reduction feature to help reduce any static and ghosting that may appear on the screen.

1. Press the **MENU** button to display the menu.
Press the **ENTER/OK** button, to select "Picture".
2. Select the required option by pressing the **▲** or **▼** button, then press the **ENTER/OK** button.
Available options: Digital NR, Active Colour, DNle.
3. When you are satisfied with your setting, press the **ENTER/OK** button.
4. Press the **EXIT** button to exit.

◆ Digital NR: Off/Low/Medium/High/Auto

If the signal received by the television is weak, you can activate this feature to reduce any static and ghosting that may appear on the screen.

➢ This function is not available in PC mode.

◆ Active Colour: Off/On

If you turn on this option, the colours of the sky and grass will be stronger and clearer for a more vivid on-screen picture.

➢ This function is not available in PC mode.

➢ This function is not available in Movie and Standard mode.

◆ DNle: Off/Demo/On

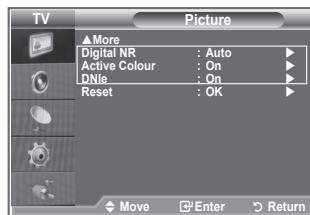
This TV includes the DNle function so as to provide a high visual quality. If you set DNle to on, you can view the screen with the DNle feature activated. If you set the DNle to Demo, you can view the applied DNle and normal pictures on the screen, for demonstration purposes. Using this function, you can view the difference in the visual quality.

➢ DNle™ (Digital Natural Image engine) **[DNle™]**

This feature brings you more detailed image with 3D noise reduction, detail enhancement, contrast enhancement and white enhancement. New image compensation Algorithm gives brighter, clearer, more detailed image to you. DNle™ technology will fit every signal into your eyes.

➢ This function is not available in PC mode.

➢ This function is not available in Movie mode.



Viewing the Picture In Picture (PIP)

You can display a sub picture within the main picture of set programme or video input. In this way, you can watch the picture of set programme or video input from any connected equipment while watching the main picture.

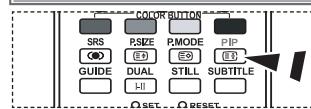
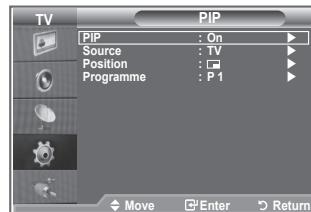
1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "PIP", then press the **ENTER/OK** button.
3. Press the **ENTER/OK** button again.
Press the **▲** or **▼** button to select "On", then press **ENTER/OK** button.
4. Press the **▲** or **▼** button to select "Source", then press **ENTER/OK** button. Select a source of the sub picture by pressing the **▲** or **▼** button and press the **ENTER/OK** button.
 - The sub picture can serve different source selections based on what the main picture is set to.

Main picture	Sub picture
Component	Analog TV broadcasts
HDMI	Ext
PC	AV

5. Press the **▲** or **▼** button to select "Position", then press the **ENTER/OK** button.
Select the position of the sub picture by pressing the **▲** or **▼** button and then press the **ENTER/OK** button.
6. Press the **▲** or **▼** button to select "Programme" and then press the **ENTER/OK** button.
You can select the channel that you want to view through sub picture by pressing the **▲** or **▼** button. Press the **ENTER/OK** button.
 - The "Programme" can be active when the sub picture is set to TV.
7. Press the **EXIT** button to exit.

➢ You may notice that the picture in the PIP window becomes slightly unnatural when you use the main screen to view a game or karaoke.

- ◆ **Source:** Used to select a source of the sub picture.
- ◆ **Position:** Used to move the sub picture.
- ◆ **Programme:** Used to Change the sub picture.



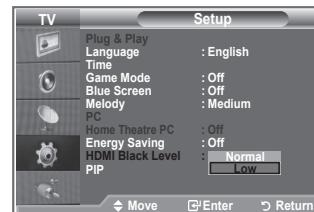
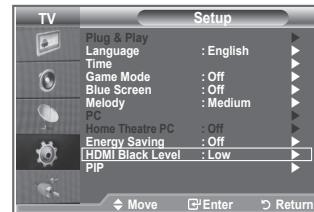
Press the **PIP** button on the remote control repeatedly to activate or deactivate the "PIP".

HDMI Black Level

You can directly select the black level on the screen to adjust the screen depth.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "HDMI Black Level", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Normal" or "Low", then press the **ENTER/OK** button.
4. Press the **EXIT** button to exit.
➢ This function is active only when the external input connects to HDMI (RGB signals).

- ◆ **Normal:** The screen gets brighter.
- ◆ **Low:** The screen gets darker.

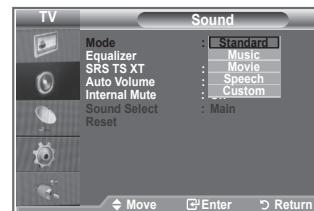
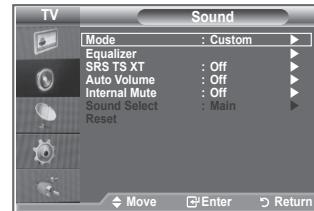


Changing the Sound Standard

You can select the type of the special sound effect to be used when watching a given broadcast.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Sound", then press the **ENTER/OK** button.
2. Press the **ENTER/OK** button again, to select "Mode".
3. Select the required sound effect by pressing the **▲** or **▼** button repeatedly and then press the **ENTER/OK** button.
4. Press the **EXIT** button to exit.

- ◆ **Standard:** Selects the normal sound mode.
- ◆ **Music:** Emphasizes music over voices.
- ◆ **Movie:** Provides live and full sound for movies.
- ◆ **Speech:** Emphasizes voices over other sounds.
- ◆ **Custom:** Selects your custom sound settings.
(Refer to "Adjusting the Sound Settings")

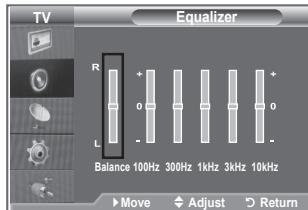
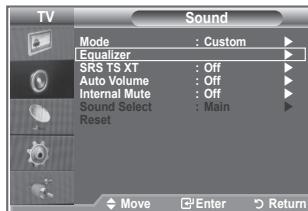


Adjusting the Sound Settings

The sound settings can be adjusted to suit your personal preferences.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Sound", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Equalizer", then press the **ENTER/OK** button.
3. Press the **◀** or **▶** button to select a particular item.
Press the **ENTER/OK** button.
4. Press the **▲** or **▼** button to reach the required setting.
Press the **ENTER/OK** button.
5. Press the **EXIT** button to exit.

➤ If you make any changes to these settings, the Sound Mode is automatically switched to "Custom".



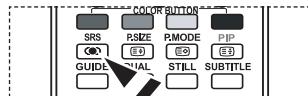
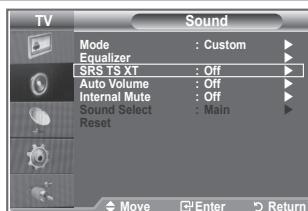
Setting the TruSurround XT (SRS TS XT)

TruSurround XT is a patented SRS technology that solves the problem of playing 5.1 multichannel content over two speakers. TruSurround delivers a compelling, virtual surround sound experience through any two-speaker playback system, including internal television speakers. It is fully compatible with all multichannel formats.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Sound", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "SRS TS XT", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "On" or "Off". Press the **ENTER/OK** button.
4. Press the **EXIT** button to exit.



TruSurround XT, SRS and  symbol are trademarks of SRS Labs, Inc. TruSurround XT technology is incorporated under license from SRS Labs, Inc.



➤ You can also set these options simply by pressing the **SRS** button on remote control.

Connecting Headphones

You can connect a set of headphones to your set if you wish to watch a TV programme without disturbing the other people in the room.

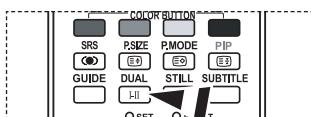
- When you insert the head set jack into the corresponding port, you can not operate "Internal Mute" in Sound menu.
- Prolonged use of headphones at a high volume may damage your hearing.
- You will not receive sound from the speakers when you connect headphones to the system.
- The headphone volume and TV volume are adjusted differently.



Selecting the Sound Mode

You can set the sound mode by pressing the "DUAL" button. When you press it, the current sound mode is displayed on the screen.

	Audio Type	Dual 1/2	Default
A2 Stereo	Mono	Mono	Automatic change
	Stereo	Stereo ↔ Mono	
	Dual	Dual 1 ↔ Dual 2	Dual 1
NICAM Stereo	Mono	Mono	Automatic change
	Stereo	Mono ↔ Stereo	
	Dual	Mono ↔ Dual 1 Dual 2	Dual 1



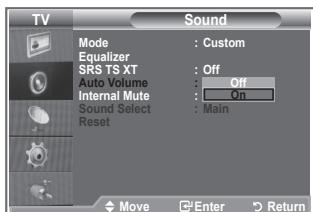
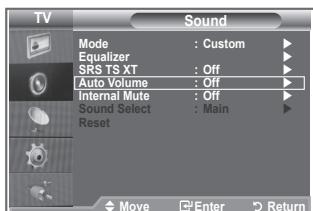
You can also set these options simply by pressing the **DUAL** button on remote control.

- If the stereo signal is weak and an automatic switching occurs, then switch to the Mono.
- This function is only activated in stereo sound signal. It is deactivated in mono sound signal.

Adjusting the Volume Automatically

Each broadcasting station has its own signal conditions and so it is not easy for you to adjust the volume every time the channel is changed. This feature allows you to automatically adjust the volume of the desired channel by lowering the sound output when the modulation signal is high or by raising the sound output when the modulation signal is low.

- Press the **MENU** button to display the menu. Press the **▲** or **▼** button to select "Sound", then press the **ENTER/OK** button.
- Press the **▲** or **▼** button to select "Auto Volume", then press the **ENTER/OK** button.
- Press the **▲** or **▼** button to select "On" or "Off". Press the **ENTER/OK** button.
- Press the **EXIT** button to exit.

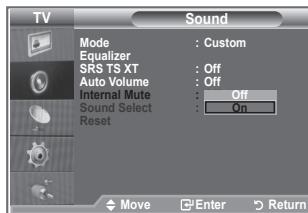
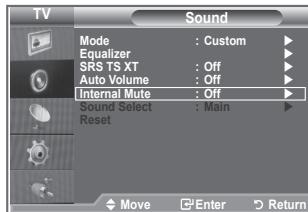


Selecting the Internal Mute

If you want to hear the sound through separate speakers, cancel the internal amplifier.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Sound", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Internal Mute", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "On" or "Off". Press the **ENTER/OK** button.
4. Press the **EXIT** button to exit.

➢ When "Internal Mute" is set to "On", the Sound menus except for "Sound Select" (in PIP mode) cannot be adjusted.



Listening to the Sound of the Sub Picture

During the PIP features activation, you can listen to the sound of the sub picture.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Sound", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Sound Select", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Sub".
Press the **ENTER/OK** button.
4. Press the **EXIT** button to exit.

◆ **Main** : Used to listen to the sound of the main picture.

◆ **Sub** : Used to listen to the sound of the sub picture.

➢ You can select this option when the "PIP" is set to "On".

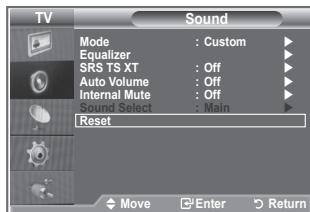


Resetting the Sound Settings to the Factory Defaults

If "Game Mode" is On, the Reset Sound function is activated (Refer to page 28). Selecting the Reset function after setting the equalizer resets the equalizer setting to the factory defaults.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Sound", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Reset", then press the **ENTER/OK** button.
3. Press the **EXIT** button to exit.

➤ You can select this option when the "Game Mode" is set to "On".



Setting and Displaying the Current Time

You can set the TV's clock so that the current time is displayed when you press the **INFO** button. You must also set the time if you wish to use the automatic On/Off timers.

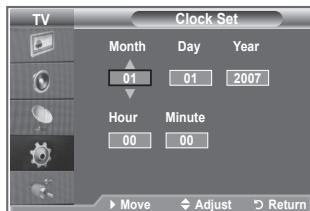
1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Time", then press the **ENTER/OK** button.

3. Press the **ENTER/OK** button to select "Clock Set".

4.

To...	Press the...
Move to "Month", "Day", "Year", "Hour" or "Minute"	◀ or ▶ button.
Set the "Month", "Day", "Year", "Hour" or "Minute"	▲ or ▼ button.
Confirm the setting	ENTER/OK button.

Move to "Month", "Day", "Year", "Hour" or "Minute" **◀ or ▶ button.**
Set the "Month", "Day", "Year", "Hour" or "Minute" **▲ or ▼ button.**
Confirm the setting **ENTER/OK button.**



5. Press the **EXIT** button to exit.

➤ If you disconnect the power cord, you have to set the clock again.

➤ You can also set "Year", "Month", "Day", "Hour" and "Minute" by pressing the number buttons on the remote control.

Setting the Sleep Timer

You can select a time period of between 30 and 180 minutes after which the television automatically switches to standby mode.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Time", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Sleep Timer", then press the **ENTER/OK** button.
4. Press the **▲** or **▼** button repeatedly until the desired time appears (Off, 30, 60, 90, 120, 150, 180).
Press the **ENTER/OK** button.
5. Press the **EXIT** button to exit.
➢ The TV automatically switches to standby mode when the timer reaches 0.



Switching the Television On and Off Automatically

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Time", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Timer 1", "Timer 2", "Timer 3", then press the **ENTER/OK** button.
4. Press the **▲** or **▼** button to adjust "Hour", then press the **▶** button to move to the next step.
Set other items using the same method as above.

	Yes/No	Press the ▲ or ▼ button
Repeat	Select a Once, Sat~Sun, Mon~Sat, Mon~Fri, Everyday	Press the ▲ or ▼ button
Volume	Adjust a 0~100	Press the ▲ or ▼ button
Programme	Adjust a Programme	Press the ▲ or ▼ button

➢ When finished, press the **RETURN** button to return.

- The current time will appear every time you press the **INFO** button.
- You can set the hour, minute, directly by pressing the number buttons on the remote control.

5. Press the **EXIT** button to exit.
➢ **Auto Power Off**
When you set the timer "On", the TV will eventually turn off, if no controls are operated for 3 hours after the TV was turned on by the timer. This function is only available in timer "On" mode and prevents overheating, which may occur if a TV is on for too long time.



Choosing Your Language

When you start using your set for the first time, you must select the language which will be used for displaying menus and indications.

1. Press the **MENU** button to display the on-screen menu. Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Language", then press the **ENTER/OK** button.
3. Select a particular language by pressing the **▲** or **▼** button repeatedly. Press the **ENTER/OK** button.
4. Press the **EXIT** button to exit.



Using Game Mode

When connecting to a game console such as PlayStation™ or Xbox™, you can enjoy a more realistic gaming experience by selecting game menu.

1. Press the **MENU** button to display the menu. Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Game Mode", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "On" or "Off". Press the **ENTER/OK** button.
4. Press the **EXIT** button to exit.

➢ To disconnect the game console and connect another external device, cancel game mode in the setup menu.

➢ If you display the TV menu in Game mode, the screen shakes slightly.

➢ Game Mode is not available in TV mode.

➢ If **Game Mode** is On:

- Picture Mode changes to **Standard** and Sound Mode changes to **Custom** automatically. The user cannot change these to other modes.
- Sound Mode in the Sound menu is deactivated. Adjust the sound using the equalizer.
- The Reset Sound function is activated. Selecting the **Reset** function after setting the equalizer resets the equalizer setting to the factory defaults.



Setting the Blue Screen Mode / Selecting the Melody

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Blue Screen" or "Melody".
Press the **ENTER/OK** button.
3. When you are satisfied with your setting,
press the **ENTER/OK** button.

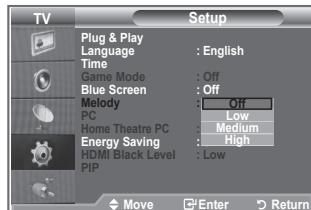
◆ Blue Screen: Off/On

If no signal is being received or the signal is very weak,
a blue screen automatically replaces the noisy picture
background. If you wish to continue viewing the poor picture,
you must set the "Blue Screen" mode to "Off".

◆ Melody: Off/Low/Medium/High

You can hear melody sound when the television is powered
on or off.

4. Press the **EXIT** button to exit.



Using the Energy Saving Feature

This function adjusts the brightness of the TV so as to
reduce power consumption. When watching TV at night, set
the "Energy Saving" mode option to "High" to reduce eye
fatigue as well as power consumption.

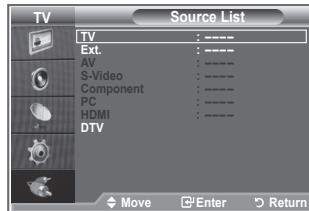
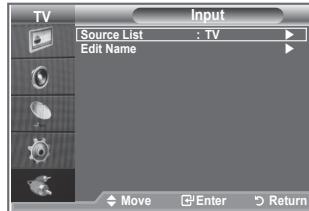
1. Press the **MENU** button to display the on-screen menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Energy Saving", then
press the **ENTER/OK** button.
3. Select the required option (Off, Low, Medium, High, Auto) by
pressing the **▲** or **▼** button. Press the **ENTER/OK** button
4. Press the **EXIT** button to exit.



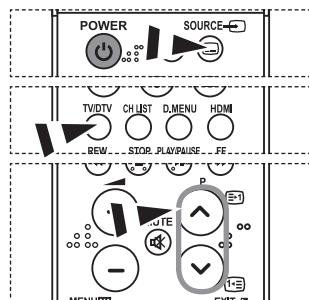
Selecting the Source

You can select among external sources connected to your TV's input jacks.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Input", then press the **ENTER/OK** button.
2. Press the **ENTER/OK** button again, to select "Source List".
➢ When no external device is connected to your set, only "TV", "Ext.", "DTV" are activated in the "Source List". "AV", "S-Video", "Component", "PC", "HDMI" are activated only when they are connected to your set.
3. Select the required device by pressing the **▲** or **▼** button.
Press the **ENTER/OK** button.



□ Press the **SOURCE** button on the remote control to toggle between all the available source.
TV mode can be selected by pressing the **TV/DTV** button, number buttons (0~9) and the **PO/PO** button on the remote control. But it cannot be selected using the **SOURCE** button.



Editing the Input Source Names

Name the device connected to the input jacks to make your input source selection easier.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Input", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Edit Name", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select the device that you wish to edit.
Press the **ENTER/OK** button.
4. Press the **▲** or **▼** button to select the required device.
Press the **ENTER/OK** button.
5. Press the **EXIT** button to exit.



Previewing the DTV Menu System

- The company does not guarantee the normal operation of the DTV menu for countries other than the 6 supported countries (United Kingdom, Germany, France, Italy, Spain, Austria) because only these country standards are supported. In addition, when the country of the broadcast stream differs from the country selected by the current user, the string appearing in the channel banner, Info, Guide, Channel Manager, etc. may not be displayed properly.
- Available in DTV mode. Preset to the DTV mode by using the TV/DTV button on your remote control. To help you navigate around the on-screen menu system and adjust the various settings available, refer to the following illustration.

Press the **D.MENU** button.

Guide	
Now & Next Guide	
Full Guide	
Scheduled List	
Default Guide	Now/Next, Full Guide
Channel	
Country	: Others
Auto Store	
Manual Store	
Edit Favourite Channels	
Channel List	
Setup	
Menu Transparency	High, Medium, Low, Opaque
Change PIN	
Parental Lock	
Subtitle	Off, On
Subtitle Mode	Normal, Hard of hearing
Audio Format	PCM, Dolby Digital
Digital Text	Disable, Enable
Time Zone	
System	Product Information Signal Information Software Upgrade Common Interface Reset
Language	
Audio Language	Primary Audio Language
Subtitle Language	Secondary Audio Language
Teletext Language	Primary Subtitle Language
Preference	Secondary Subtitle Language Primary Teletext Language Secondary Teletext Language



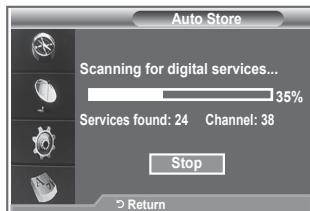
You can select these options by simply pressing the **D.MENU** button on the remote control.

- The sub-items of the CI Menu may vary depending on the CAM model.

Updating the Channel List Automatically

You can update the channel list when the broadcaster adds new Services or if you move the TV to a new location.

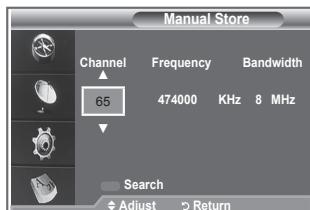
1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Channel", then press the **ENTER/OK** button.
3. Press the **ENTER/OK** button again, to select "Country".
4. Select the appropriate country by pressing the **▲** or **▼** button. Press the **ENTER/OK** button to confirm your choice.
 - Even though you have changed the country setting in this menu, the country setting for Analog TV is not changed.(Refer to page 10)
5. Press the **▲** or **▼** button to select "Auto Store", then press the **ENTER/OK** button.
 - When it has finished, the number of scanned services will be displayed.
 - The existing favourite channel list will not be deleted when the channel list is updated.
 - To stop the scan before it has finished, press the **ENTER/OK** button with "STOP" selected.
6. Press the **EXIT** button to exit.
 - If the signal status is poor, the "No Service found! Check the aerial connection" message is displayed.



Updating the Channel List Manually

You can specify the channel for a fast channel search.

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Channel", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Manual Store", then press the **ENTER/OK** button.
4. Press the **▲** or **▼** button to select "Channel", then press the **ENTER/OK** button.
 - • **Channel:** Channel "5" to "69" in sequence are displayed (depending on the country)
 - • **Frequency:** The frequency available in the Channel group is displayed.
 - • **Bandwidth:** The available bandwidths are 7 and 8 MHz.
5. When it has finished, the number of scanned services will be displayed.
6. Press the **EXIT** button to exit.



Editing Your Favourite Channels

You can edit your favourite channels using the four colour buttons.

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Channel", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Edit Favourite Channels", then press the **ENTER/OK** button.
4. Press the red button to display all currently stored channels.
5. Press the **▲** or **▼** button to select a channel you want. Press the **ENTER/OK** button.
 - A "★" icon is shown next to the selected channel and the channel will be added to the favourite channel list.
 - • To undo, press the **ENTER/OK** button again.
 - **Select All:** Select all channels currently displayed.
 - **Select None:** Deselect all selected channels.
 - **Preview:** Displays (a) currently selected channel(s).
6. Press the **ENTER/OK** button to complete the operation.

◆ Add

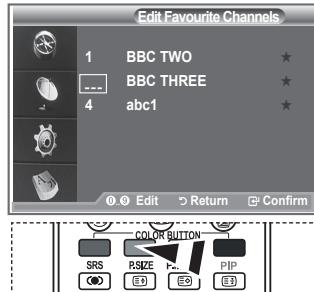
You can use this function when one or more favourite channels have been selected.

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Channel", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Edit Favourite Channels", then press the **ENTER/OK** button.
4. Press the red button in the "Edit Favourite Channels" menu. To add more channels, refer to the step 5 on the previous description.
5. If you want to check the channel to be stored, press **RETURN** button.
Press the **EXIT** button to exit.
 - • To add all channels to the favourite channel list, press the red button.
 - To remove all channels, press the green button.
 - **Preview** : Displays (a) currently selected channel(s).
 - Press the **CH LIST** button to display the favourite channel manager.



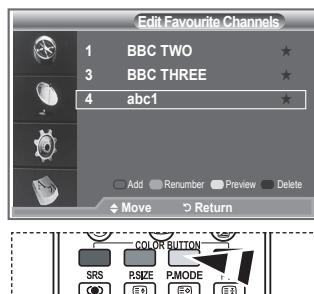
◆ **Renumber (depending on the country)**

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Channel", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Edit Favourite Channels", then press the **ENTER/OK** button.
4. Select the required channel using the **▲** or **▼** button.
5. Press the green button.
➤ The space for entering the number is a blank.
6. Enter the new channel number. Press **ENTER/OK** button to store or **RETURN** button to cancel.
➤ Press the **◀** button to delete an entered digit.
➤ If you enter a number already assigned to another channel, the number is assigned to the selected channel and the previous number assigned to the selected channel is assigned to the other channel.
That is, the two numbers are exchanged.
➤ The favorite channels are automatically sorted in ascending order of channel numbers.
7. Press the **EXIT** button to exit.



◆ **Preview**

1. In the "Edit Favourite Channels" menu, select the channel to be previewed by pressing the **▲** or **▼** button.
2. Press the yellow button.
➤ The selected channel is displayed on the screen.



◆ **Delete**

1. In the "Edit Favourite Channels" menu, select the channel to be deleted from the favourite channels list by pressing the **▲** or **▼** button.
2. Press the blue button.
➤ The selected channel and number will be deleted.
➤ To add a deleted channel back in to the favourite channel list, see "Add" on page 33.



Selecting Channel List

You can exclude the channels you have chosen from the channels you have scanned. When you scan through the stored channels, those you have chosen to skip are not displayed. All channels that you do not specifically choose to skip are displayed during scanning.

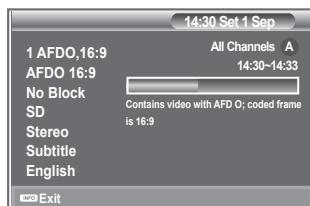
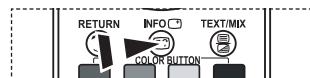
1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Channel", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Channel List".
Press the **ENTER/OK** button.
4. Press the **▲** or **▼** button to select "All", "Favourites" or "Default".
Press the **ENTER/OK** button.
5. Press the yellow button to toggle between your favourite channels and all channels.
➤ Your favourite channels are only displayed if they were previously set in the "Editing Your Favourite Channels" menu (refer to page 33).
6. Press the red or green button to display the previous or next channel List page.
7. Press the **▲** or **▼** button to select a channel to be tuned.
Press the **ENTER/OK** button.
➤ The channel number, name and an icon are displayed in the top left corner while changing the channel. The channel number and name are displayed if the channel is one of the all channels, and a ★ icon if the channel is one of the favourite channels.
8. Press the blue button to toggle between your TV, Radio, Data/Other and All.
9. Press the **CH LIST** button to exit from the channel List

Channel List		
Test Card M'		All Channels-All 1/2
1	Test Card M'	23 bid-up.tv
3	Vid@03b	25 TCM
4	Vid@04b	26 UKTV Style
5	Vid@05b	27 Discovery
6	Vid@06b	28 DiscoveryH&L
15	Ch 15	15 Cartoon Nwk
16	QVC	33 Boomerang
17	UKTV Gold	55 Text Holidays
		300 ARD-MHP-Data
		More
		Previous Page
		NextPage
		Favourites
		TV
	Move	Watch
		Return

Displaying Programme Information

While viewing a channel, additional information about the current programme may be displayed.

1. While viewing a programme, press the **INFO** button.
➤ The programme information is displayed.
2. To exit from banner information, press the **INFO** button.



Viewing the EPG (Electronic Programme Guide) Information

The EPG (Electronic Programme Guide) information is provided by the broadcasters. Programme entries may appear blank or out of date as a result of the information broadcast on a given channel. The display will dynamically update as soon as new information becomes available.

◆ Now & Next Guide

For the six channels indicated in the left-hand column, displays the Current programme and the Next programme information.

◆ Full Guide

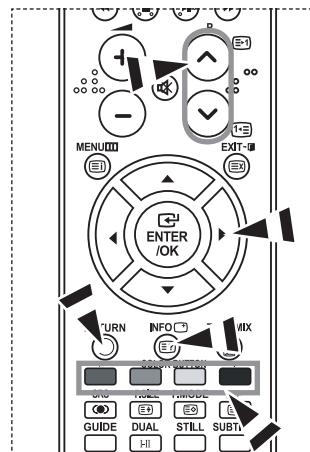
Displays the programme information as time ordered One hour segments. Two hours of programme information is displayed which may be scrolled forwards or backwards in time.

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **ENTER/OK** button, to select "Guide".
3. Press the **▲** or **▼** button to select "Now & Next Guide" or "Full Guide".
4. Press the **ENTER/OK** button.
 - You can also display the guide menu simply by pressing the **GUIDE** button.

To...	Then...
Watch a programme in the EPG list	<ul style="list-style-type: none">• Select a programme by pressing the ▲, ▼, ◀, ▶ button.• Press the ENTER/OK button. <p>➢ If the next program is selected, it is scheduled with the clock icon displayed. If the ENTER/OK button is pressed again, the scheduling is canceled with the clock icon gone. For details about scheduling programmes, refer to the next page.</p>
View programme information	<ul style="list-style-type: none">• Select a programme of your choice by pressing the ▲, ▼, ◀, ▶ button.• Press the INFO button when the programme of your choice is highlighted.
Toggle between the "Now & Next Guide" or "Full Guide"	<ul style="list-style-type: none">• Press the red button repeatedly.
Display the "Favourites" and the "All Channels" list	<ul style="list-style-type: none">• Press the green button repeatedly.
Scrolls backwards quickly (24 hours).	<ul style="list-style-type: none">• Press the yellow button repeatedly.
Scrolls forward quickly (24 hours).	<ul style="list-style-type: none">• Press the blue button repeatedly.
Exit the guide	<ul style="list-style-type: none">• Press the EXIT button.

➢ The programme title is on the upper part of the screen center. Please click on **INFO** button for the detailed information. Channel Number, Running Time, Status Bar, Parental Level, Video Quality Information(HD/SD), Sound Modes, Subtitle or Teletext, Languages of Subtitle or Teletext and brief summary of the highlighted programme are included on the detailed information. "... will be appeared if the summary is long.

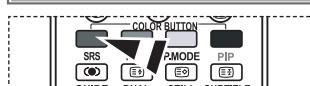
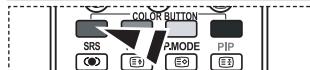
➢ Six channels are displayed. To scroll between channels, move to a channel using the **▲** or **▼** button. To display page by page, use the **P ⊖** or **⊖** button.



Using the Scheduled List

If you make a scheduled viewing list of programs you may like to see, the channel will be automatically switched to the scheduled program at the scheduled time even if you are watching another program.

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **ENTER/OK** button, to select "Guide".
3. Press the **▲** or **▼** button to select "Scheduled List", then press the **ENTER/OK** button.
4. Press the red button.
The channel will be switched to the scheduled program.
5. Press the **ENTER/OK** button to select an item and adjust with the **▲** or **▼** button.
 - You can also set hour and minute by pressing the number buttons on the remote control.
 - **Channel:** Set the channel.
 - **Time:** Set the time.
 - **Date:** Set Year, Month and Day.
 - **Frequency:** Set the frequency.
("Once", "Daily" or "Weekly")
6. After setting the schedule, Press the red button.
7. Press the **EXIT** button to exit.



Setting the Default Guide

You can preset the default guide style.

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **ENTER/OK** button, to select "Guide".
3. Press the **▲** or **▼** button to select "Default Guide", then press the **ENTER/OK** button.
4. Select "Now/Next" or "Full Guide" using the **▲** or **▼** button, and press the **ENTER/OK** button.
5. Press the **EXIT** button to exit.



You can select these options by simply pressing the **GUIDE** button on the remote control.

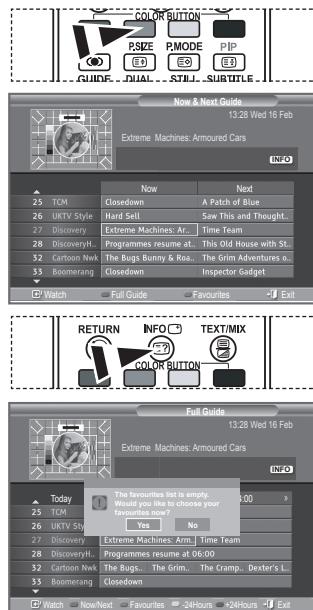
Viewing All Channels and Favourite Channels

In the EPG menu, you can display all channels or favourite channels.

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **ENTER/OK** button again, to select "Guide".
3. Select the your required guide ("Now & Next Guide" or "Full Guide") by pressing the **▲** or **▼** button.
4. Press the **ENTER/OK** button.
5. Press the green button.
All the channel lists and the favorite channel lists will be toggled.
6. Select a programme of your choice by pressing the **▲**, **▼**, **◀** or **▶** button.
7. Press the **INFO** button to display information about the highlighted programme.
8. When the Edit Favourite Channels list has not been set up:
 - "The favourites list is empty.
Would you like to choose your favourites now?" message is displayed.
 - Select "Yes".
The "Edit Favourite Channels" menu is displayed.
If you select "No", all channels will remain unchanged.
 - To edit the favourite channels, refer to page 33 for more details.
9. Press the **EXIT** button to exit.

➢ "All Channels" is the list of channels that have been scanned by the channel list update.
All channels are displayed in the all channel mode.

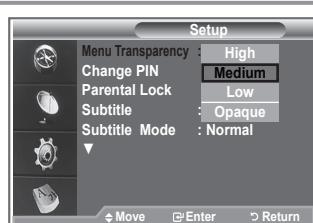
➢ "Favourites" (favourite channels) is the list of channels that has been set in the "Edit Favourite Channels" menu (refer to page 33).



Adjusting the Menu Transparency

You can set the transparency of the menu.

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Menu Transparency" then press the **ENTER/OK** button.
4. Select the required option ("High", "Medium", "Low" or "Opaque") by pressing the **▲** or **▼** button and press the **ENTER/OK** button to change the setting.
5. Press the **EXIT** button to exit.

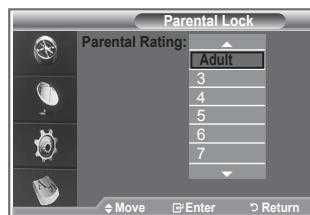
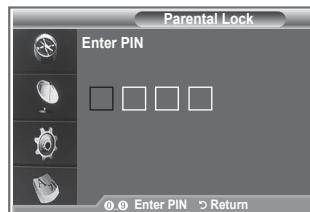
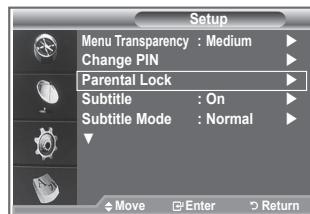


Setting up the Parental Lock

This feature allows you to prevent unauthorized users, such as children, from watching unsuitable programmes by a 4-digit PIN (Personal Identification Number) code that is defined by the user. The on-screen menu will instruct you to assign a PIN code (you can change it later, if necessary).

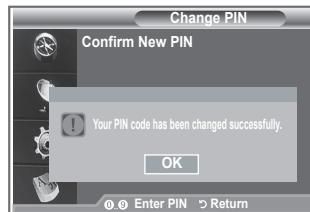
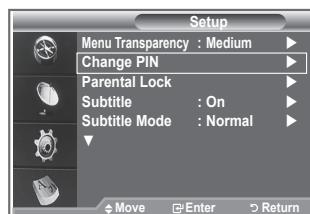
◆ Parental Lock

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Parental Lock.", then press the **ENTER/OK** button.
4. The "Enter PIN" is displayed.
5. Enter your current 4-digit PIN code by using the numeric buttons (0~9).
 - The default PIN code for a new TV set is 0000.
 - If you enter an invalid PIN code, the "Invalid PIN code. Please try again." message is displayed.
6. Press the **ENTER/OK** button again, to select "Parental Rating".
7. Press the **▲** or **▼** button to select the age rating you want to lock out. Press the **ENTER/OK** button.



◆ Change PIN

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Change PIN", then press the **ENTER/OK** button.
 - The "Enter PIN" is displayed.
4. Enter your current 4-digit PIN code by using the numeric buttons (0~9).
 - The "Enter New PIN" is displayed.
5. Enter your new PIN code by using the numeric buttons (0~9).
 - The "Confirm New PIN" is displayed.
6. Re-enter your new PIN code to confirm by using the numeric buttons (0~9).
 - The 'Your PIN code has been changed successfully.' message is displayed.
7. Press the **ENTER/OK** button.
8. Press the **EXIT** button to exit.
 - If you forget the PIN code, press the remote control buttons in the following sequence, which resets the PIN to 0-0-0-0: **POWER (Off)**, **MUTE**, **8, 2, 4**, **POWER (On)**.



Setting the Subtitle

You can activate and deactivate the subtitles.

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Subtitle", then press the **ENTER/OK** button.
4. Select "On" by pressing the **▲** or **▼** button. Press the **ENTER/OK** button.
5. Press the **EXIT** button to exit.



Setting the Subtitle Mode

Use this menu to set the Subtitle Mode. "Normal" under the menu is the basic subtitle and "Hard of hearing" is the subtitle for a hearing-impaired person.

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Subtitle Mode", then press the **ENTER/OK** button.
4. Press the **▲** or **▼** button to select "Normal" or "Hard of hearing". Press the **ENTER/OK** button.
5. Press the **EXIT** button to exit.

➤ If the programme you are watching does not support the "Hard of hearing" function, "Normal" automatically activates even though "Hard of hearing" mode is selected.



Selecting the Audio Format

You can only hear Dolby Digital sound through the audio receiver connected through an optical cable. You can only hear PCM sound through the main speaker.

When sound is emitted from both the main speaker and the audio receiver, a sound echo may occur due to the decoding speed difference between the main speaker and the audio receiver. In this case, use the internal mute function.

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Audio Format", then press the **ENTER/OK** button.
4. Press the **▲** or **▼** button to select "PCM" or "Dolby Digital". Press the **ENTER/OK** button.
5. Press the **EXIT** button to exit.

➤ The Audio Format appears according to the broadcasting signal. Dolby digital sound is only available when the TV is connected with an external speaker using an optical cable.



Selecting the Digital Text

If the programme is broadcast with digital text, this feature is enabled.

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Digital Text", then press the **ENTER/OK** button.
4. Press the **▲** or **▼** button to select "Disable" or "Enable". Press the **ENTER/OK** button.
5. Press the **EXIT** button to exit.

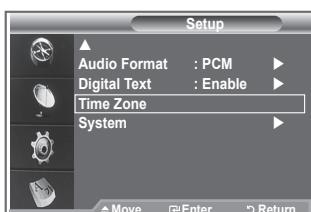
➢ MHEG(Multimedia and Hypermedia Information Coding Experts Group) An International standard for data encoding systems used in multimedia and hypermedia. This is at a higher level than the MPEG system which includes data-linking hypermedia such as still images, character service, animation, graphic and video files as well as multimedia data. MHEG is user runtime interaction technology and is being applied to various fields including VOD (Video-On-Demand), ITV (Interactive TV), EC (Electronic Commerce), tele-education, tele-conferencing, digital libraries and network games.



Selecting the Time Zone (Spain only)

Select the time zone where locate

1. Press the **D.MENU** button.
2. Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Time Zone", then press the **ENTER/OK** button.
4. Select the time zone where you locate by pressing the **▲** or **▼** button.
Press the **ENTER/OK** button.
➢ The following options are available
The Iberian Peninsula and Balears Islands -
Canarian Islands
5. Press the **EXIT** button to exit.



Viewing Product Information

You can view your product information. For service or repair, please contact a Samsung approved dealer.

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "System", then press the **ENTER/OK** button.
4. Press the **ENTER/OK** button again, to select "Product Information".
➢ The Product Information menu is selected.
- Software Version, Firmware Version
5. Press the **EXIT** button to exit.

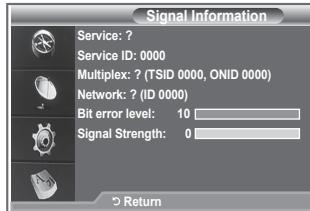


Checking the Signal Information

You can get information about the signal status.

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "System", then press the **ENTER/OK** button.
4. Press the **▲** or **▼** button to select "Signal Information", then press the **ENTER/OK** button.
5. Press the **EXIT** button to exit.

➢ If the signal status is poor, the "No signal." message is displayed.



Upgrading the Software

To keep your product up-to-date with new Digital Television features then software upgrades are periodically broadcast as part of the normal Television signal.

It will automatically detect these signals and display the software upgrade banner. You are given the option to install the upgrade.

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "System", then press the **ENTER/OK** button.
4. Press the **▲** or **▼** button to select "Software Upgrade", then press the **ENTER/OK** button.
5. Press the **▲** or **▼** button to select "Software Information", "Manual Upgrade" or "Satandby Mode upgrade". Press the **ENTER/OK** button.

◆ Software Information

Press the **ENTER/OK** button, then the current software version is shown. To display the software version information, press the **ENTER/OK** button again. To switch to an alternative version, press the red button. Press the blue button to reset, activate the upgrade and restart.

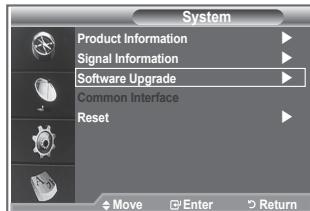
◆ Manual Upgrade

Press the **ENTER/OK** button to search for new software from the currently broadcasting channels.

◆ Standby Mode Upgrade : On/Off

Press the **ENTER/OK** button. To continue software upgrade with master power on, Select On by pressing the **▲** or **▼** button. 45 minutes after entering standby mode, a manual upgrade is automatically conducted. Since the power of the unit is turned on internally, the screen may be on slightly for the LCD product. This phenomenon may continue for more than 1 hour until the software upgrade is completed.

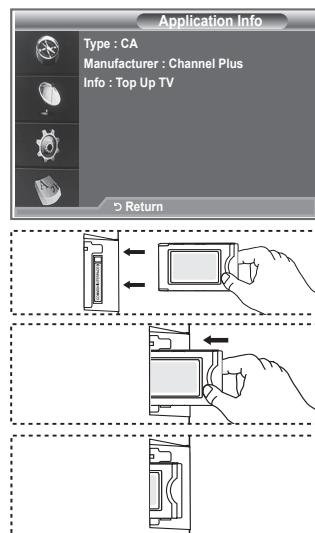
6. Press the **EXIT** button to exit.



Viewing Common Interface

This contains information on CAM inserted in the CI slot and displays it.

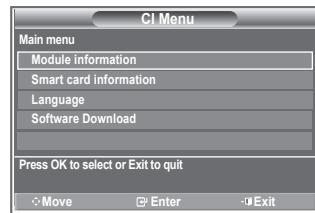
1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "System", then press the **ENTER/OK** button.
4. Press the **▲** or **▼** button to select "Common Interface", then press the **ENTER/OK** button.
5. Press the **ENTER/OK** button to display the information for your application.
6. Press the **EXIT** button to exit.
➢ The Application Info inserting is about the CI CARD.
➢ You can install the CAM anytime whether the TV is ON or OFF.
 - 1.Purchase the CI CAM module by visiting your nearest dealer or by phone.
 - 2.Insert the CI CARD into the CAM in the direction of the arrow until it fits.
 - 3.Insert the CAM with the CI CARD installed into the common interface slot.
(Insert the CAM in the direction of the arrow, right up to the end so that it is parallel with the slot.)
 4. Check if you can see a picture on a scrambled signal channel.



Selecting the CI (Common Interface) Menu

This enables the user to select from the CAM-provided menu.

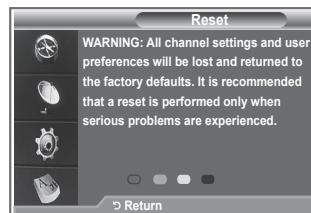
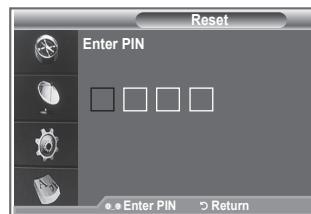
1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "System", then press the **ENTER/OK** button.
4. Press the **▲** or **▼** button to select "Common Interface", then press the **ENTER/OK** button.
5. Select to "CI Menu" by pressing the **▲** or **▼** button and press the **ENTER/OK** button.
6. Select the required option by pressing the **▲** or **▼** button, and press the **ENTER/OK** button.
7. Press the **EXIT** button to exit.
➢ Select the CI Menu based on the menu PC Card.



Resetting

You can reset the values stored to the factory default values.

- The Reset operation deletes all channel information and user preferences returning all values to their default factory state.
- 1. Press the **D.MENU** button to display the DTV menu.
- 2. Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
- 3. Press the **▲** or **▼** button to select "System", then press the **ENTER/OK** button.
- 4. Press the **▲** or **▼** button to select "Reset", then press the **ENTER/OK** button.
- 5. The "Enter PIN" screen will appear.
- 6. Enter your current 4-digit PIN code by using the numeric buttons (0-9).
 - The warning message is displayed. All values will be reset by pressing the coloured buttons (red, green, yellow and blue) in turn.
- 7. Press the **EXIT** button to exit.



Selecting the Preferred Language (Subtitle, Audio or Teletext)

You can change the default value for subtitle, audio teletext languages.

Displays the language information for the incoming stream.

1. Press the **D.MENU** button to display the DTV menu.
2. Press the **▲** or **▼** button to select "Language", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Audio Language", "Subtitle Language" or "Teletext Language".
Press the **ENTER/OK** button.
4. Select a particular language by pressing the **▲** or **▼** button repeatedly.
Press the **ENTER/OK** button.
 - English is the default in cases where the selected language is unavailable in the broadcast.
5. Press the **EXIT** button to exit.

➢ While viewing a programme, the subtitle can be selected.
While viewing a programme, audio languages can be selected.



Preference

This menu consists of 6 sub-menus:

**Primary Subtitle Language, Secondary Subtitle Language,
Primary Audio Language, Secondary Audio Language,
Primary Teletext Language and Secondary Teletext Language.**

Using this feature, users can select one of the languages (English, German, Italian, Swedish, French, Welsh, Gaelic, Irish, Danish, Finnish, Norwegian, Spanish, Czech and Greek). The language selected here is the default when the user selects a channel.



- ◆ Press the ▲ or ▼ button to select required menu (Primary Subtitle Language, Secondary Subtitle Language, Primary Audio Language, Secondary Audio Language, Primary Teletext Language or Secondary Teletext Language), then press the **ENTER/OK** button. The options of the selected menu are displayed.
- ◆ Press the ▲ or ▼ button to select required option (English, German, Italian, Swedish, French, Welsh, Gaelic, Irish, Danish, Finnish, Norwegian, Spanish, Czech or Greek), then press the **ENTER/OK** button.
- > If you change the language setting, the Subtitle Language, Audio Language and the Teletext Language of the Language menu (refer to page 44) are automatically changed to the selected language.
- > The Subtitle Language, Audio Language and the Teletext Language of the Language menu show a list of languages supported by the current channel and the selection is highlighted. If you change this language setting, the new selection is only valid for the current channel. The changed setting does not change the setting of the Primary Subtitle Language, Primary Audio Language or the Primary Teletext Language of the Preference menu.

Teletext Feature

Most television stations provide written information services via teletext. The index page of the teletext service gives you information on how to use the service. In addition, you can select various options to suit your requirements by using the remote control buttons.

➢ For teletext information to be displayed correctly, channel reception must be stable. Otherwise, information may be missing or some pages may not be displayed.

① TV/DTV

Exit from the teletext display.

② (index)

Used to display the index (contents) page at any time while you are viewing teletext.

③ (teletext on/mix)

Press to activate teletext mode after selecting the channel providing the teletext service. Press it twice to overlap the teletext with the current broadcasting screen.

④ (size)

Press to display the double-size letters in the upper half of the screen. For lower half of the screen, press it again. To display normal screen, press it once again.

⑤ (mode)

Press to select the teletext mode (LIST/FLOF). If you press it in the LIST mode, it switches into the List save mode. In the List save mode, you can save teletext page into list using the (store) button.

⑥ (sub-page)

Used to display the available sub-page.

⑦ (page up)

Used to display the next teletext page.

⑧ (page down)

Used to display the previous teletext page.

⑨ (cancel)

Used to display the broadcast when searching for a page.

⑩ (reveal)

Used to display the hidden text (answers to quiz games, for example). To display normal screen, press it again.

⑪ Coloured buttons (red/green/yellow/blue)

If the FASTEXT system is used by a broadcasting company, the different topics covered on a teletext page are colour-coded and can be selected by pressing the coloured buttons. Press one of them corresponding to the required. The page is displayed with other coloured information that can be selected in the same way. To display the previous or next page, press the corresponding coloured button.

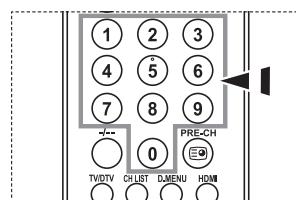
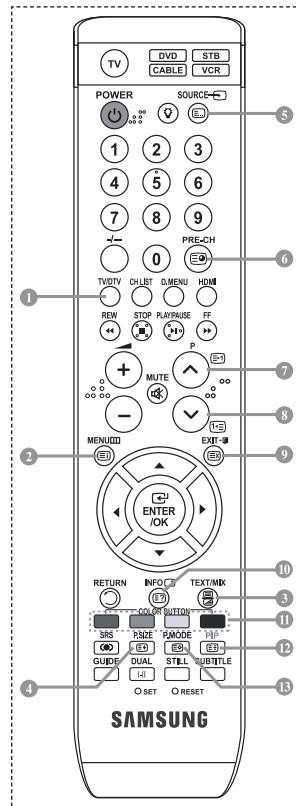
⑫ (hold)

Used to hold the display on a given page if the selected page is linked with several secondary pages which follow on automatically. To resume, press it again.

⑬ (store)

Used to store the teletext pages.

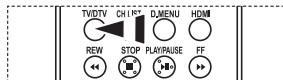
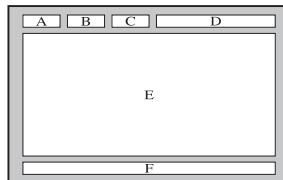
➢ You can change teletext pages by pressing the numeric buttons on the remote control.



The teletext pages are organized according to six categories:

Part	Contents
A	Selected page number.
B	Broadcasting channel identity.
C	Current page number or search indications.
D	Date and time.
E	Text.
F	Status information. FASTEXT information.

- Teletext information is often divided between several pages displayed in sequence, which can be accessed by:
 - ◆ Entering the page number
 - ◆ Selecting a title in a list
 - ◆ Selecting a coloured heading (FASTEXT system)
- Press the **TV/DTV** button to exit from the teletext display.



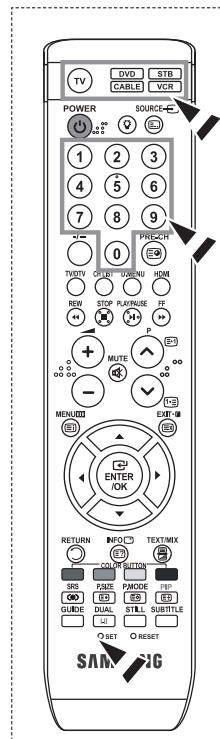
Setting Up Your Remote Control

After it has been set up properly, your remote control can operate in five different modes: TV, DVD, Cable, Set-Top Box, VCR. Pressing the corresponding button on the remote control allows you to switch between these modes and control whichever piece of equipment you choose.

- The remote control might not be compatible with all DVD Players, VCRs, Cable boxes and Set-Top Boxes.

Setting Up the Remote to Operate Your VCR, CABLE, DVD and STB

1. Turn off your **VCR, CABLE, DVD and STB**.
2. Press the **VCR, CABLE, DVD and STB** button on your TV's remote control.
3. Press the **SET** button on your TV's remote control.
4. Using the number buttons on your remote control, enter three digits of the VCR code listed on pages 48~50 of this manual for your brand of VCR. Make sure you enter three digits of the code, even if the first digit is a "0". (If more than one code is listed, try the first one.)
5. Press the **POWER** button on the remote control.
Your VCR should turn on if your remote is set up correctly.
If your VCR does not turn on after set up, repeat steps 2, 3 and 4, but try one of the other codes listed for your brand of VCR.
If no other codes are listed, try each VCR code, 000 through 080.



Remote Control Codes

➤ VCR

Brand	Code	Brand	Code
SAMSUNG	000 001 002 003 004 005 077 078 079	MONTGOMERY WARD	020
ADMIRAL	020	MTC	002 025
AIWA	025	MULTITECH	002 005 025 038
AKAI	004 027 032	NEC	007 008 018 026 037 062 064
AUDIO DYNAMICS	007 026	OPTIMUS	020
BELL&HOWELL	018	ORION	073 074 075 076
BROKSONIC	022	PANASONIC	021 056 071 072
CANDLE	002 003 006 008 015 055	PENTAX	019 041 075
CANON	021 056	PENTEX	008
CITIZEN	002 003 006 008 015 055	RESEARCH+	
COLORTYME	007	PHILCO	021 056 059
CRAIG	002 024	PHILIPS	021 080
CURTIS MATTHES	002 007 008 017 021 025 056 064 066	PIONEER	019 026 039 053
DAEWOO	003 010 011 012 013 014 015 016	PORTLAND	015 049 055
DB	007 026	PROSCAN	017
DIMENZIA	017	QUARTZ	018
DYNATECH	025	QUASAR	021 056
ELECTROHOME	034	RADIO SHACK/REALISTIC	006 018 020 021 024 025 029 034 048 056
EMERSON	001 003 006 021 022 025 030 032 034 040 047 050 052 060 063 065 066 067 069 073	RCA	002 017 019 021 035 041 043 057 068 076
FISHER	018 024 028 029 048 051 061	SANSUI	026
FUNAI	025	SANYO	018 024
GENERAL ELECTRIC	002 005 017 021 056	SCOTT	003 047 052 067
GO VIDEO	002	SEARS	006 018 019 024 028 029 041 048 051
HARMAN KARDON	007	SHARP	020 034 045 015
HITACHI	019 025 041 042 074	SHIMTOM	027 033 038 058
INSTANT REPLAY	021	SIGNATURE	025
JC PENNEY	002 007 018 019 021 026 037 041 054 056	SONY	027 033 044
JCL	007 008 018 021 026 037	SYLVANIA	021 025 056 059
JVC	081 082 083	SYMPHONIC	025
KENWOOD	007 008 018 021 026 037	TANDY	018 025
KLH	070	TASHIKA	006
KONIA	036	TATUNG	037
LG(Goldstar)	006 007 008 009 010	TEAC	025 037 068
LOYD	025	TECHNICS	021
LOGIK	038	TEKNIKA	006 021 025 031
LXI	025	TMK	066
MAGNAVOX	021 056 059	TOSHIBA	003 019 029 051 052
MARANTZ	007 008 018 021 026 037 062	TOTEVISION	002 006
MARTA	006	UNITECH	002
MEI	021	VECTOR RESEARCH	007 026
MEMOREX	006 021 024 025	VICTOR	026
MGA	034	VIDEO CONCEPTS	007 026
MIDLAND	005	VIDEOSONIC	002
MINOLTA	019 041 075	WARDS	002 003 006 019 020 021 024 025 034 038 041
MITSUBISHI	019 034 041 046	YAMAHA	007 008 018 026 037
		ZENITH	023 027 033

➤ CABLE BOX

Brand	Code
SAMSUNG	000 001 002 003 004 005 006 007
GI	041
HAMLIN	003 024 031
HITACHI	025 030
JERROL	038 039
MACOM	025 030
MAGNAVOX	019 023 028
OAK	026
PANASONIC	003 022 027 037 044
PHILIPS	019 021 023 028
PIONEER	004 018 020 044
RCA	014 022 040
REGAL	003

Brand	Code
REGENCY	015 023
SA	042 043
SCIENTIFIC ATLAN	042 043
SPRUCER	022
STARGATE 2000	036
SYLVANIA	016
TEXSCAN	016
TOCOM	032
UNIVERSAL	033 034
VIEWSTAR	019 021 023 028
WAMER AMEX	046
ZENITH	017 029 035 037 045

➤ SAMSUNG DVD

Product	Code
DVD	000 001 002
DVDR	003 004
BD Record	005 006
VCR COMBO	007 008 009 010 011
VCR Record	012
DHR COMBO	013

Product	Code
Home Theater VCR COMBO	014 015 016
HDD Recorder COMBO	017
TWIN TRAY COMBO	018
STB DVD COMBO	019
DVD Receiver	020
AV Receiver	021

➤ DVD

Brand	Code
ANAM	030
AUDIOVOX	075
AUDIOLOGIC	085
ANABA	072
APEX DIGITAL	070 071 074 086 083 084 088 111 112
AIWA	114
BROKSONIC	062
BLAUPUNKT	074
B&K	122 123
CURTIS MATHES	027
CYBER HOME	077 078 079 082
CLARION	080 125
CIRRUS	081
CYBER HOME	065
CINEVISION	095
DAEWOO	066
DENON	146
FARENHEIT	067 068
FISHER	090
GPX	060
GO VIDEO	061 089 133 135
GE	069 074
GREENHILL	074
HITACHI	064 113
HITEKER	071
HOYO	073
HARMAN / KARDON	091 110
IRT	089

Brand	Code
INTEGRA	092
JBL	091
JVC	022 033 115 116
JATON	073
KENWOOD	051 108 109
KISS	073
KONKA	059 100 106 107
KLH	074 075
LG(Goldstar)	025 031
LOEWE	057
LASONIC	058
MOBILE	054
AUTHORITY	
MEMOREX	055
MALATA	056
MAGNAVOX	076 093
MINTEK	074 094
MONYKA	073
NORCENT	048 049 050
NEXT BASE	052
NEC	053
NANTAUS	144
NESA	074
OPTOMEDIA	105
ELECTRONICS	
OPTIVIEW	072
ONKYO	076 092 119
PHILCO	044 045
PRINCETON	046 047
PROSCAN	023

➤ DVD

Brand	Code
PANASONIC	024 034 124 134 136 137 138
PHILIPS	036 076
ROTEL	117 118
RIO	120
RCA	023 035 074 075 131 132
RAITE	073
ROWA	038
SAMPO	104
SONY	026 029 126 127 128 129 130 141
SHERWOOD	039 041
SVA	042
SYLVANIA	043 093
SHARP	140
SANSUI	062
SANYO	062 090
SHINSONIC	094

Brand	Code
THOMSON	145
TOSHIBA	028 062 076
TECHNICS	139
TVIEW	072
TOKAI	073
TEAC	096
TECHWOOD	097
TREDEX	098 099 101
URBAN CONCEPTS	076
VENTURER	075
VOCOPRO	102
YAMAHA	032 063
YAMAKAWA	040 073
XWAVE	103
ZENITH	076 121

➤ SAMSUNG SET-TOP BOX

Product	Code
Ground wave STB	000 001 002 008 013
CABLE STB	000 004 008 013
Satellite STB	000 003 008 013

➤ SET-TOP BOX

Brand	Code
ALPHASTAR	023
ANAM	043
CHANNEL	018 034
MASTER	
CROSSDIGITAL	019
CHAPARRAL	035
DIRECT TV	015 016 017 019 022 045 060 061 062 065 066 067 068
DAEWOO	074
DISH NETWORK	069 070
SYSTEM	
DISHPRO	069
DRAKE	018 024 032
DX ANTENNA	027
ECHOSTAR	025 069 070 071
EXPRESSVU	069
GOI	069
GE	065
GENERAL INSTRUMENT	046 047 048 063 064
HTS	069
HOME CABLE	056
HITACHI	022
HUGHES NETWORK	015 017
IQ	020
IQ PRISM	020
JANEIL	059
JERROID	063
JVC	069 070
LG(Goldstar)	044 073

Brand	Code
MAGNAVOX	016 021 036 038 039 040 041 042
MEMOREX	016
MOTOROLA	064
MACOM	018
MITSUBISHI	015
NEXT LEVEL	047 048 064
PHILIPS	015 016 017 021 033 036 038 039 040 041 042 067
PRIMESTAR	046 049 050 063
PANASONIC	058 059 061 062
PYSAT	016
PROSCAN	065 066
RCA	051 052 053 065 066
RADIOSHACK	064
REALISTIC	057
STAR TRAK	026
STS	020 027
SKY	031
SKY LIFE	005 006 007
SHACK	064
STAR CHOICE	064
SONY	054 060
TOSHIBA	015 017 028 029 030 072
ULTIMATE TV	060 066
UNIDEN	016 021 037 055 056 057
ZENITH	024 031 068

Setting up Your PC Software (Based on Windows XP)

The Windows display-settings for a typical computer are shown below. The actual screens on your PC may be different depending upon your particular version of Windows and your particular video card. Even if your actual screens look different, the same, basic set-up information will apply in almost all cases. (If not, contact your computer manufacturer or Samsung Dealer.)

1. First, click on "Control Panel" on the Windows start menu.
2. When the control panel window appears, click on "Appearance and Themes" and a display dialog-box will appear.
3. When the control panel window appears, click on "Display" and a display dialog-box will appear.



4. Navigate to the "Settings" tab on the display dialog-box. The correct size setting (resolution): Optimum- 1680 x 1050
If a vertical-frequency option exists on your display settings dialog box, the correct value is "60" or "60 Hz". Otherwise, just click "OK" and exit the dialog box.

Display Modes

Both screen position and size will vary depending on the type of PC monitor and its resolution. The resolutions in the table are recommended. (All resolutions between the supported limits are supported)

➢ D-Sub Input

Mode	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H/V)
IBM	640x350	31.469	70.086	25.175	+/-
	720x400	31.469	70.087	28.322	-/+
	640x480	31.469	59.940	25.175	-/-
VESA	640x480	37.861	72.809	31.500	-/-
	640x480	37.500	75.000	31.500	-/-
	800x600	37.879	60.317	40.000	+/-
	800x600	48.077	72.188	50.000	+/-
	800x600	46.875	75.000	49.500	+/-
	1024x768	48.363	60.004	65.000	-/-
	1024x768	56.476	70.069	75.000	-/-
	1024x768	60.023	75.029	78.750	+/-
	1152x864	53.783	59.959	81.750	-/+
	1152x864	67.500	75.000	108.000	+/-
	1280x960	60.000	60.000	108.000	+/-
	1280x1024	63.981	60.020	108.000	+/-
	1280x1024	79.976	75.025	135.000	+/-
	1680x1050	64.674	59.883	119.000	+/-
	640x480	35.000	70.000	28.560	-/+
VESA GTF	800x600	43.750	70.000	45.500	-/+
	1024x768	57.672	72.000	78.434	-/-

➢ HDMI/DVI Input

Mode	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H/V)
IBM	640x350	31.469	70.086	25.175	+/-
	720x400	31.469	70.087	28.322	-/+
	640x480	31.469	59.940	25.175	-/-
VESA	800x600	37.879	60.317	40.000	+/-
	1024x768	48.364	60.000	65.000	-/-
	1280x1024	63.981	60.015	108.000	+/-
	1680x1050	64.674	59.883	119.000	+/-

- The interlace mode is not supported.
- The set might operate abnormally if a non-standard video format is selected.
- Separate and Composite modes are supported. SOG is not supported.

Setting the PC

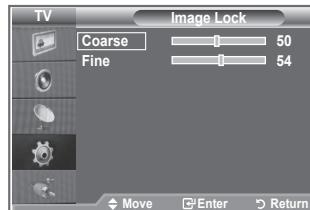
Coarse and Fine Tuning of the Image (Image Lock):

The purpose of picture quality adjustment is to remove or reduce picture noise.

If the noise is not removed by Fine-tuning alone, then adjust the frequency as best as possible (coarse) and Fine-tune again.

After the noise has been reduced, re-adjust the picture so that it is aligned on the center of screen.

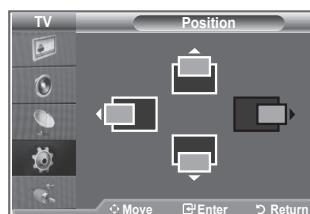
1. Preset: Press the **SOURCE** button to select PC mode.
2. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "PC", then press the **ENTER/OK** button.
4. Press the **ENTER/OK** button to select "Image Lock".
5. Press the **▲** or **▼** button to select "Coarse" or "Fine", then press the **ENTER/OK** button.
6. Press the **◀** or **▶** button to adjust the screen quality.
Press the **ENTER/OK** button.
7. Press the **EXIT** button to exit.



Changing the Image Position:

Adjust the PC's screen positioning if it does not fit the TV screen.

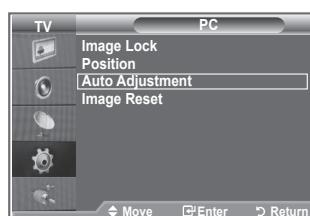
1. Follow the "Coarse and Fine Tuning of the Image (Image Lock)" instructions number 1 to 3.
2. Press the **▲** or **▼** button to select "Position", then press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to adjusting the Vertical-Position.
Press the **◀** or **▶** button to adjust the Horizontal-Position.
Press the **ENTER/OK** button.
4. Press the **EXIT** button to exit.



Adjusting the PC Screen Automatically (Auto Adjustment):

Auto adjustment allows the PC screen of set to self-adjust to the incoming PC video signal. The values of fine, coarse and position are adjusted automatically.

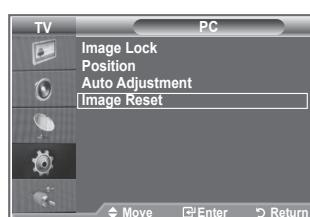
1. Follow the "Coarse and Fine Tuning of the Image (Image Lock)" instructions number 1 to 3.
2. Press the **▲** or **▼** button to select "Auto Adjustment", then press the **ENTER/OK** button.
3. Press the **EXIT** button to exit.



Initializing the Image Settings (Image Reset):

You can replace all image settings with the factory default values.

1. Follow the "Coarse and Fine Tuning of the Image (Image Lock)" instructions number 1 to 3.
2. Press the **▲** or **▼** button to select "Image Reset", then press the **ENTER/OK** button.
3. Press the **EXIT** button to exit.

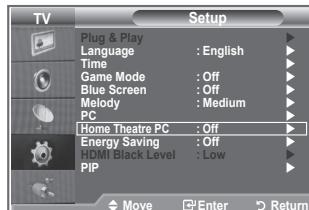


Setting the Home Theatre PC

You can view higher quality pictures by configuring the screen settings in PC Mode.

If you set the "Home Theatre PC" function to On, you can configure the "Detail Settings" (when Picture Mode is set to Standard or Movie) as in PC Mode.

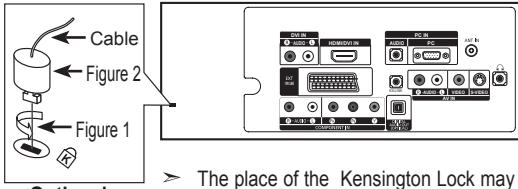
1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER/OK** button.
2. Press the **▲** or **▼** button to select "Home Theatre PC".
Press the **ENTER/OK** button.
3. Press the **▲** or **▼** button to select "Off" or "On".
Press the **ENTER/OK** button.
4. Press the **EXIT** button to exit.
➤ This function is available only in PC mode.



Using the Anti-Theft Kensington Lock

The Kensington lock is a device used to physically fix the system when using it in a public place. The locking device has to be purchased separately. The appearance and locking method may differ from the illustration depending on the manufacturer. Please refer to the manual provided with the Kensington lock for proper use.

1. Insert the locking device into the Kensington slot on the LCD TV (Figure 1) and turn it in the locking direction (Figure 2).
2. Connect the Kensington lock cable.
3. Fix the Kensington lock to a desk or a heavy stationary object.



> The place of the Kensington Lock may be different depending on its model.

Troubleshooting: Before Contacting Service Personnel

No sound or picture	<ul style="list-style-type: none">• Check that the mains lead has been connected to a wall socket.• Check that you have pressed the button  on the front of the set.• Check the picture contrast and brightness settings.• Check the volume.
Normal picture but no sound	<ul style="list-style-type: none">• Check the volume.• Check whether the MUTE  button has been pressed on the remote control.• Check if "Internal Mute" is off
Screen is black and power indicator light blinks steadily	<ul style="list-style-type: none">• On your computer check; Power, Signal Cable.• The TV is using its power management system.• Move the computer's mouse or press any key on the keyboard.
No picture or black and white picture	<ul style="list-style-type: none">• Adjust the colour settings.• Check that the broadcast system selected is correct.
Sound and picture interference	<ul style="list-style-type: none">• Try to identify the electrical appliance that is affecting the set and move it further away.• Plug your set into a different mains socket.
Blurred or snowy picture, distorted sound	<ul style="list-style-type: none">• Check the direction, location and connections of your aerial. This interference is often due to the use of an indoor aerial.
Remote control malfunctions	<ul style="list-style-type: none">• Replace the remote control batteries.• Clean the upper edge of the remote control (transmission window).• Check the battery terminals.
"Check signal cable." message is displayed.	<ul style="list-style-type: none">• Check that the signal cable is firmly connected to the PC or video sources.• Check that the PC or video sources are turned on.
On PC mode, "Not Supported Mode." message is displayed.	<ul style="list-style-type: none">• Check the maximum resolution and the frequency of the video adaptor.• Compare these values with the data in the Display Modes.

The TFT LCD panel uses a panel consisting of sub pixels (5 292 000) which require sophisticated technology to produce. However, there may be few bright or dark pixels on the screen. These pixels will have no impact on the performance of the product.

Technical and Environmental Specifications

Model Name	LE22S8
Screen Size (Diagonal)	22 inch
PC Resolution	1680 x 1050 @ 60 Hz
Sound Output	3W x 2
Dimension (WxDxH)	
Body	615.5 x 81.2 x 403.4 mm
With stand	615.5 x 231.9 x 486.5 mm
Weight	
With stand	7.5 kg
Environmental Considerations	
Operating Temperature	10 °C to 40 °C (50 °F to 104 °F)
Operating Humidity	10 % to 80 %, non-condensing
Storage Temperature	-20 °C to 45 °C (-4 °F to 113 °F)
Storage Humidity	5 % to 95 %, non-condensing

- Design and specifications are subject to change without prior notice.
- This device is a Class B digital apparatus.
- For the power supply and Power Consumption, refer to the label attached to the product.

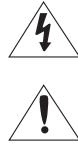
Warning! Important Safety Instructions

Please read the appropriate section that corresponds to the marking on your Samsung product before attempting to install the product.

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER ALL SERVICING TO QUALIFIED PERSONNEL.



This symbol indicates that high voltage is present inside. It is dangerous to make any kind of contact with any internal part of this product.



This symbol alerts you that important literature concerning operation and maintenance has been included with this product.

- The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable operation of this apparatus, and to protect it from overheating, these slots and openings must never be blocked or covered.
 - Do not cover the slots and openings with a cloth or other materials.
 - Do not block the slots and openings by placing this apparatus on a bed, sofa, rug or other similar surface.
 - Do not place this apparatus in a confined space, such as a bookcase, or built-in cabinet, unless proper ventilation is provided.
 - Give your product 10 cm (4 inch) clearance from the wall.
- Do not place this apparatus near or over a radiator or heat resistor, or where it is exposed to direct sunlight.
- Do not place heat generating items such as candles, ashtrays, incense, flammable gas or explosive materials near the product.
- Do not place a water containing vessel on this apparatus, as this can result in a risk of fire or electric shock.
- Do not expose this apparatus to rain or place it near water(near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool etc.). If this apparatus accidentally gets wet, unplug it and contact an authorized dealer immediately. Make sure to pull out the power cord from the outlet before cleaning.
- This apparatus uses batteries. In your community there might be regulations that require you to dispose of these batteries properly under environmental considerations. Please contact your local authorities for disposal or recycling information.
- Do not overload wall outlets, extension cords or adaptors beyond their capacity, since this can result in fire or electric shock.
- Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plug end, adaptors and the point where they exit from the appliance.
- To protect this apparatus from a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the set due to lightning and power line surges.
- Before connecting the AC power cord to the DC adaptor outlet, make sure the voltage designation of the DC adaptor corresponds to the local electrical supply.
- Never insert anything metallic into the open parts of this apparatus. Doing so may create a danger of electric shock.
- To avoid electric shock, never touch the inside of this apparatus. Only a qualified technician should open this apparatus.
- Make sure to plug the power cord in until it is firmly inserted. When removing the power cord, make sure to hold the power plug when pulling the plug from the outlet. Do not touch the power cord with wet hands.
- If this apparatus does not operate normally - in particular, if there are any unusual sounds or smells coming from it - unplug it immediately and contact an authorized dealer or service center.
- Be sure to pull the power plug out of the outlet if the TV is to remain unused or if you are to leave the house for an extended period of time (especially when children, elderly or disabled people will be left alone in the house).
- Accumulated dust can cause an electric shock, an electric leakage or a fire by causing the power cord to generate sparks and heat or the insulation to deteriorate.
- Be sure to contact an authorized service center, when installing your set in a location with heavy dust, high or low temperatures, high humidity, chemical substances and where it operates for 24 hours such as the airport, the train station etc. Failure to do so may cause serious damage to your set.
- Use only a properly grounded plug and receptacle.
 - An improper ground may cause electric shock or equipment damage. (Class I Equipment only.)
- To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily operable.
- Do not allow children to hang onto the product.
- Store the accessories (battery, etc.) in a location safely out of the reach of children.
- Do not install the product in an unstable location such as a shaky self, a slanted floor or a location exposed to vibration.
- Do not drop or impart any shock to the product. If the product is damaged, disconnect the power cord and contact a service center.



**WARNING - TO PREVENT THE SPREAD OF FIRE,
KEEP CANDLES OR OTHER OPEN FLAMES
AWAY FROM THIS PRODUCT AT ALL TIMES.**

Wiring the Mains Power Supply Plug (UK Only)

IMPORTANT NOTICE

The mains lead on this equipment is supplied with a moulded plug incorporating a fuse. The value of the fuse is indicated on the pin face of the plug and, if it requires replacing, a fuse approved to BSI1362 of the same rating must be used.

Never use the plug with the fuse cover omitted if the cover is detachable. If a replacement fuse cover is required, it must be of the same colour as the pin face of the plug. Replacement covers are available from your dealer.

If the fitted plug is not suitable for the power points in your house or the cable is not long enough to reach a power point, you should obtain a suitable approved extension lead or consult your dealer for assistance. However, if there is no alternative but to cut off the plug, remove the fuse and then safely dispose of the plug.

Do NOT connect the plug to a mains socket as there is a risk of shock hazard from the bared flexible cord.

IMPORTANT

The wires in the mains lead are coloured in accordance with the following code:

BLUE - NEUTRAL BROWN - LIVE

As these colours may not correspond to the coloured markings identifying the terminals in your plug, proceed as follows :

The wire coloured BLUE must be connected to the terminal marked with the letter N or coloured BLUE or BLACK. The wire coloured BROWN must be connected to the terminal marked with the letter L or coloured BROWN or RED.

WARNING:

DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL, WHICH IS MARKED WITH THE LETTER E OR BY THE EARTH SYMBOL  , OR COLOURED GREEN OR GREEN AND YELLOW.

Warranty Card



UNITED KINGDOM

This Samsung product is warranted for a period of twelve (12) months from the original date of purchase, against defective materials and workmanship. In the event that warranty service is required, you should return the product to the retailer from whom it was purchased. However, Samsung Authorised Dealers and Authorised Service Centres in other EC Countries will comply with the warranty on the terms issued to purchasers in the country concerned. In case of difficulty, details of our Authorised Service Centres are available from:

Samsung Electronics U.K. Ltd.

Customer Care Centre
PO Box 17243
Edinburgh, EH11 4YB
United Kingdom

Tel: 0870 SAMSUNG (7267864)(UK & Northern Ireland)
Tel: 0818 717 100 (Republic of Ireland Only)
Fax: +44 (0)870 7221127
Web : www.samsung.com/uk

WARRANTY CONDITIONS

1. The warranty is only valid if, when warranty service is required, the warranty card is fully and properly completed and is presented with the original invoice or sales slip or confirmation, and the serial number on the product has not been defaced.
2. Samsung's obligations are limited to the repair or, at its discretion, replacement of the product or the defective part.
3. Warranty repairs must be carried out by Authorised Samsung Dealers or Authorised Service Centres. No re-imbursement will be made for repairs carried out by non Samsung Dealers and, any such repair work and damage to the products caused by such repair work will not be covered by this warranty.
4. This product is not considered to be defective in materials nor workmanship by reason that it requires adaptation in order to conform to national or local technical or safety standards in force in any Country other than the one for which the product was originally designed and manufactured.



Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

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